NCL INDUSTRIES LIMITED
CEMENT DIVISION

NCL GROUP

AN ISO 9001 : 2015 COMPANY
CIN : L33130TG1979PLC002521

NCL/QC/ 2021-22/1353 Date: 30.11.2021

The Director (S),
Regional Office (south Eastern Zone),
Government of India,
Ministry of Environment & Forest and Climate Change,
1st 2nd Floor, HEPC Building, No.34, Cathedral Garden Road,
Nungambakkam, Chennai – 600034.

Dear Sir,

Sub: Submission of Six month Compliance Report of the Environment Clearance accorded to M/s. NCL Industries Ltd, Simhapuri, Nalgonda (Dt), Telangana.

Ref: 1. Expansion of Cement Plant Environment Clearance:
F. No: J- 11011/576/2008-IA II(I), Dated: 28.10.2016.
2. Cement Plant & Lime stone Environment Clearance:
F.No: J-11011/576/2008-IA II (I), Dated 15.12.2009.

We submit herewith the conditions wise Compliance Status Report for the above referred Environment Clearances accorded by the MoEFCC along with test reports of Ambient Air Quality, Fugitive Emission, Stack Monitoring and Noise levels, Water & Waste Water Analysis Reports and Ground Water Level Monitored by accredited third party laboratory M/s. Lawn Enviro Associates for the period **April to September 2021** for the kind information.

Thanking you,

Yours Faithfully,

For NCL INDUSTRIES LTD.

NCL INDUSTRIES LTD. SIMHAPURI, Suryapet Dt.

PRESIDENT (WORKS)

Encl: 1. Compliance Status Report of F. No: J- 11011/576/2008-IA 11(I), Dated: 28.10.2016. along with Monthly Monitoring Reports.
2. Compliance Status Report of F. No: J- 11011/576/2008-IA 11(I), Dated: 15.12.2009. along with Monthly Monitoring Reports.

CC to : 1. Regional Directorate – Bengalore, CPCB Zonal Office, A-Block, Nisarga Bhavan, 1st and 2nd Floors, 7th D Cross, Thimmaiah Road, Shivanagar, BENGALURU – 560079.
2. The Environment Engineer, TSPCB Board, Regional Office, H.No.6-2-888/B, 2nd Foolr, Laxmi Complex, Near Clock Tower, NALGONDA – 508001.

Factory : Simhapuri, Mattapalli Village, Mattampalli Mandal, Suryapet Dist.,-508 204, T.S.
Tel : 08683-227630, Fax: 08683-227629 E-mail : nclworks@nclind.com
Regd. & Corporate Office: 7th Floor, NCL Pearl, Near Rail Nilayam, S.D. Road, Secunderabad-500 026. Telangana, India,
T : 91-40-30120000, 2980 7868/69, Fax: 91-40-2980 7871, E-mail: ncl@nclind.com | Website : www.nclind.com

NCL INDUSTRIES LIMITED :: SIMHAPURI

PLANT :: ENVIRONMENTAL CLEARENCE COMPLIANCE REPORT

Six months Compliance Report for the period of April to September 2021
Conditions Specified in EC Granted by MOEF
Vide Letter No: F. No: J- 11011/576/2008-IA 11(I) Dated:28th Oct 2016

A	SPECIFIC CONDITIONS	DETAILS OF FOLLOWUP ACTION
i)	The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.	On-line stack monitoring equipments are installed for all major stacks i.e.; in all the Three Lines - Kiln, Cooler & Coal mill and Cement mills. Equipments connected and uploading data to website of CPCB & TSPCB. In addition to these, two CAAQM stations are also installed and connected to CPCB & TSPCB. One more CAAQM Station received and will be installed on or before 15.12.2021. Details & Photos are enclosed. **Annexure - I**
ii)	The Standards issued by the Ministry vide G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 regarding cement plants with respect to particulate matter, SO2 and NOx shall be followed.	Being followed. Ambient & Stack measurements are being carried out monitoring done by accredited Laboratory on monthly basis and for Particulate Matter, SO2 and NOx reports are submitted to TSPCB Regularly. Reports are enclosed as **Annexure – XVII**
iii)	Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled to meet prescribed standards by installing adequate air pollution control viz Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag filters to coal mill and cement mill. Low NOx burners shall be provided to control NOx emissions. Regular calibration of the instruments must be ensured.	Continuous stack monitoring equipments are installed for all major stacks. SPM being controlled within the limits by installing following Pollution Control Equipments ➢ RABH for Kiln II /Raw Mill ➢ ESP for Coolers - I , II & III ➢ PJBH for Kiln I & Kiln III ➢ Low Nox burner installed in Kilns ➢ Bag Filters for Cement mills (Line I,II,III) ➢ Bag House for Coal mills I & II ➢ Bag Filters provide for all material transfer lines & LS Crushers, fine coal bins and silos, pre-heater top de-dusting equipments, kiln feed extraction equipment & packing plants etc., ➢ 11MW WHR Waste Heat Recovery Power Project established by using existing Kiln and Cooler hot gases, obtained CFO from TSPCB. CFO No: 210522792844 Dt: 17.02.2021. ➢ SPM emissions will be reduced further with operation of WHR. ➢ Load on ESP will be reduced and it will run more

<table>
<tr><td></td><td></td><td>efficiently.
The stack emission levels are within Standard Limits "SPM - 30 mg/Nm3, SO2 – 100mg/nm3 and NOx - 800mg/nm3.
All the Pollution Control Equipments Details enclosed Annexure – II</td></tr>
<tr><td>iv)</td><td>Efforts shall be made to achieve power consumption of 70 units/tonne for Portland Pozzolona Cement (PPC) and 95 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/kg of clinker.</td><td>Efforts are made to reduce power consumption of cement and thermal energy consumption of clinker.
Power and thermal energy consumption details given below
<table>
<tr><th>S.NO</th><th>NAME OF THE PRODUCT</th><th>SPECIFIC CONDITIONS AS PER "EC– 2016"</th><th>ACTUAL CONSUMPTION 2020 – 21</th></tr>
<tr><td>1</td><td>Portland Pozzolona Cement (PPC) Units/ Tonne of Production</td><td>70 Units /Tonne</td><td>76.32 Units/ Tonne</td></tr>
<tr><td>2</td><td>Ordinary Portland Cement (OPC) Units/Tonne of Production</td><td>95 Units /Tonne</td><td>89.23 Units /Tonne</td></tr>
<tr><td>3</td><td>Thermal energy consumption Kcal/kg of clinker</td><td>670 Kcal/Kg Clinker</td><td>745 Kcal/Kg Clinker</td></tr>
</table></td></tr>
<tr><td>v)</td><td>The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.</td><td>Being followed,
Third party approved by MOEF & CC is engaged to carry out Emissions and Ambient Air Quality monitoring as per NAAQ standards. The data collected are submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB regularly. Reports are enclosed Annexure – XVII</td></tr>
<tr><td>vi)</td><td>AAQ Modeling shall be carried out based on the specific mitigative measures taken in the existing project and proposed for the expansion project to keep the emissions well below prescribed standards.</td><td>Being followed,
Third party approved by MOEF & CC is engaged to carry out AAQ Modeling and the specific mitigative measures are taken. The emission levels are within prescribed Standard Limits. Reports are enclosed Annexure --VII</td></tr>
</table>

vii)	Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guide lines /code of practice issued by the CPCB in this regard shell be followed.	Fixed Water Sprinklers are arranged on the material transfer belt and roads to control fugitive emissions and Dedicated Water tankers are using for dust suppress. Secondary fugitive emissions from all the sources are controlled the parameters are within the latest permissible limits. The Analysis Data is submitting regularly to CPCB & TSPCB. Photos are enclosed **Annexure –V**
viii)	A statement on carbon budgeting including the quantum of equivalent CO2 being emitted by the existing plant operations, the amount of carbon sequestered annually by the existing green belt and the proposed green belt and the quantum of equivalent CO2 that will be emitted due to the proposed expansion shall be prepared by the project proponent and submitted to the Ministry and the Regional Office of the Ministry. This shall be prepared every year by the project proponent. The first such budget shall be prepared within a period of 6 months and subsequently it should be prepared every year.	Area of the cement plant is 48.12 ha. Out of this 36.38 % i.e., 17.5 ha have already brought under Greenbelt. In addition to this extensive plantation activity is taken up in the Mines area, School, colony and available vacant places. The survival of saplings is good. Green Belt Details enclosed **Annexure -VIII**
ix)	For the employees working in high temperature zones falling in the plant operation areas, the total shift duration would be 4 hrs or less per day where the temperature is more than 50 degrees centigrade. Moreover, the jobs of these employees will be alternated in such a way that no employee is subjected to working in high temperature area for more than 1 hr continuously. Such employees would be invariably provided with proper protective equipments, garments and gears such as head gear, clothing, gloves, eye protection etc. There should also be an arrangement for sufficient drinking water at site to prevent dehydration etc.	Being followed. PPE are providing to works as per the requirements, arranging purified Mineral Water for drinking to prevent dehydration. Enclosed RO Plant Photos as **Annexure - IX**
x)	Arsenic and Mercury shall be monitored in emissions, ambient air and water.	Being followed. Carry out Arsenic & Mercury in emissions and Ambient Air Quality monitoring, all the values are within Standard Limits by NABL accreted third party laboratory. Reports are enclosed **Annexure VI**
xi)	The coal yard shall be lined and covered.	Coal & Raw Material is stored in covered storage sheds. Photos are enclosed. **Annexure – III**

xii)	The project proponent shall prepare a report on impact of project on surrounding reserve forests within six months and will get it approved from the State Forest Department. A copy of the same should be submitted to the Ministry and its Regional Office.	Forest Department Permission Letter: RC. No: 75/2017/S, Dated 27.11.2018 – Copy Enclosed
xiii)	The project proponent shall take all precautionary measures for conservation and protection of wild fauna found in the study area. A Wildlife Conservation Plan specific to this project site shall be prepared in consultation with the State Forest and Wildlife Department. A copy of the Conservation plan shall be submitted to the Ministry and its Regional Office.	**Annexure - IV**
xiv)	The project proponent will also provide the latest status of the environmental compliances in respect of its existing plant.	Soft Copy submitted through mail Ref letter No: NCL/QC/2021-22/908, 31.05.2021, Submission covering letter Enclosed as **Annexure – XV**
xv)	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.	Efforts are made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials trucks are covered with a tarpaulin and are not overloaded, fly ash are transported in the closed containers only. Measures are taken for maintenance of vehicles used in mining operation. Vehicular emissions are kept under control and regularly monitored. Water sprinkling and dust suppression methods are adapted to control dust emission in the Plant Roads & Mines Roads are carried out. **Annexure – V**
xvi)	Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.	Efforts are made to reduce water consumption by recycling of used process water. The STP out let Treated water used for Green belt development and Roads wetting purpose to control dust emissions. The process water is recycled and no process water is discharged outside the factory. Photos are Enclosed **Annexure –V**
vii)	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.	Rain water harvesting arrangement for the roof top collection and storm water with proper drainage and settling pits are made in the cement plant and the rain water is collected in the mine pit and this is helping to recharge the ground water.

viii)	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment [Protection] Act, 1986.	No process effluent water is generated in factory. We have STP in colony for treatment of Domestic effluent 250 KLD. The treated water used for greenbelt development in factory & colony. The wastewater & treated water, drinking water analysis done by third party. The reports are submitting in SPCB regularly.
xix)	All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers/reprocesses only.	All the bag filter dust, raw material dust, clinker dust & cement dust from pollution control devices are recycled & reused in the process and used for cement manufacturing. Waste oil and batteries and e-waste is stored and disposed to authorized recyclers/ reprocesses.
xx)	The kiln shall be provided with a flexible fuel feeding system to enable use of hazardous wastes and other wastes including biomass, etc.	Necessary provisions are made with flexible fuel feeding system to enable use of liquid hazardous wastes along with coal.
xxi)	The proponent shall examine and prepare a plan for utilization of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc as alternate fuels based on availability and composition. For this, the proponent shall identify suitable industries with such wastes and enter into an MOU for long-term utilization of such wastes as per the Environment (Protection) Rules, 1986 and with necessary approvals.	Obtained CFO from State Pollution Board for utilization of Indigenes and Import Pet Coke and other organic & inorganic solvents. Entered to MOU with units for long-term utilization hazardous waste and in according with Hazardous Waste Regulations and prior approval of the PCB. Started using Organic Waste Liquid from Pharma Companies. This High Calorific Hazardous Waste is using in cement kiln as AFR and all the necessary precautionary measures are taken.
xii)	Efforts shall be made to use the high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly. The PP shall enter into an MOU with units with potential for generating hazardous waste and in accordance with Hazardous Waste Regulations and prior approval of the MPPCB.	The consumption details are submitting regularly to RO-TSPCB. Stack monitoring was done with NABL accreted third party laboratory at the time of co processing. The emissions are well within the standard limit's **Reports are enclosed – VI.**
xiii)	Green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area and along road sides etc. by planting native and broad leaved species in consultation with l0oal DFO, local community and as per the CPCB guidelines.	Area of the cement plant is 48.12 ha. Out of this 36.38 % i.e., 17.5 ha have already brought under Greenbelt. In addition to this we have already taken up extensive plantation activity in the Mines area & Schools, colony and available vacant places. Requested Forest department to allocate land for plantation. In all three mines also taken up plantation in consultation with local DFO. The plantation work and survival are good. Green Belt Details enclosed. **ANNEXURE – VIII**

xiv)	The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.	Being followed Solar lighting arrangement made at Mining area. Arranged solar fencing along the factory boundary. **Annexure – X**
xv)	The project proponent shall provide for LED lights in their offices and residential areas.	Being followed Present LED Lights are used for all the Plant & outside areas.
xvi)	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.	All the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for the Cement Plants are implemented. 1. Primary health center was established in plant premises and providing ambulance service for 24hrs. 2. Arranging regular heath checkup camps in nearby villages with free services. 3. Provided free education pre primary school to Jr College for employee children's and nearby villages. 4. Provided Water Plant for drinking water.
vii)	At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constitution a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.	The commitments made during Public Hearing are implemented.
viii)	In addition to the above provision of ESC, the proponent shall prepare a detailed CSR Plan for the next 5 years including annual physical and financial targets for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Skill Development and infrastructure etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net Profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall	1. Company provided modern housing colony with all the facilities for employs & workers. 2. A separate budget is kept for the occupational health surveillance within and outside the campus in the nearby villages. 3. We are conducting medical camps in the surrounding villages by arranging outside doctors and are providing free medicines to the patients. 4. Providing dispensary facility and in case of emergency we are providing ambulance facility to the villagers. 5. Free education is provided for employees' children & village peoples up to Jr College. **Annexure -X**

	be created and the annual capital and revenue expenditure on various activities of the plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.	
xix)	A Risk Assessment Study and Disaster Preparedness and Management Plan along with the mitigation measures shall be prepared with a focus of Disaster Prevention and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.	Being followed A Risk Assessment Study and Disaster Preparedness and Management Plan along with the mitigation measures prepared with a focus of Disaster Prevention and a copy submitted to the Ministry's Regional Office, SPCB and CPCB, Reports are Enclosed **Annexure - XI**
xx)	To educate the workers, all the work places where dust may cause a hazard shall be clearly indicated as a dust exposure area though the use of display signs which identifies the hazard and the associated health effects.	Being followed, Educating the works on personal safety, hazard's at all the work places. Creating awareness by arranging Display signs boards and training programs. Enclosed Photos Annexure –**XII**
xxi)	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Being followed. Housing & necessary infrastructure and facilities are provided. Temporary structures will be removed after completion of project.
B	**GENERAL CONDITIONS**	**DETAILS OF FOLLOWUP ACTION**
i)	The project authorities must strictly adhere to the stipulations made by the Telangana Pollution Control Board and the State Government.	The stipulations made by TSPCB are adhered regularly.
i)	No further expansion or modification of the plant shall be carried out prior approval of this Ministry of Environment, Forests and climate Change (MoEFCC)	Being followed the guidelines of MoEFCC.
ii)	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack	Being followed The ambient air quality and noise levels are monitored regularly and the levels are within the limits. And the third party reports are submitting regularly to ministry including its Regional office at Chennai and the SPCB/CPCB once in six months regularly

	emission shall be regularly submitted to this ministry including its Regional office at Chennai and the SPCB/CPCB once in six months	Reports Enclosed – **Annexure XIV**
v)	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	No process effluent water is generated in factory. We have STP in colony for treatment of Domestic effluent 250 KLD. The treated water used for greenbelt development in factory & colony.
vi)	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz.75dBA (day time) & 70dBA (Night time).	The overall noise levels in and around the plant area is kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels are monitored at Five locations during day and night time the noise levels are within the limits. Reports Enclosed **Annexure – XIV**
vii)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the factories Act.	Occupational health surveillance (OHS) program is done on a regular basis & records are maintained as per the factories Act. Health check up programs "90 MEDICAL CAMPS" are conducted for employees, works, colony peoples and surrounding villages peoples Total 6199 No's are Beneficiated during the April to September 2021. Enclosed the Programs list as **Annexure - X**
viii)	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Rain water harvesting arrangement for the roof top collection and storm water with proper drainage and settling pits are made in the cement plant and the rain water is collected in the mine pit and this is helping to recharge the ground water **Annexure –V**
ix)	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmers, educational programmers, drinking water supply and health care etc.	Conducting medical camps in the surrounding villages by arranging outside doctors and are providing medicines to the patients. Providing dispensary facility and in case of emergency we are providing ambulance facility to the villagers. And supplying RO water for Drinking in the surrounding villages. Free education is provided for employee's children &village peoples up to Jr College. **Annexure –X**

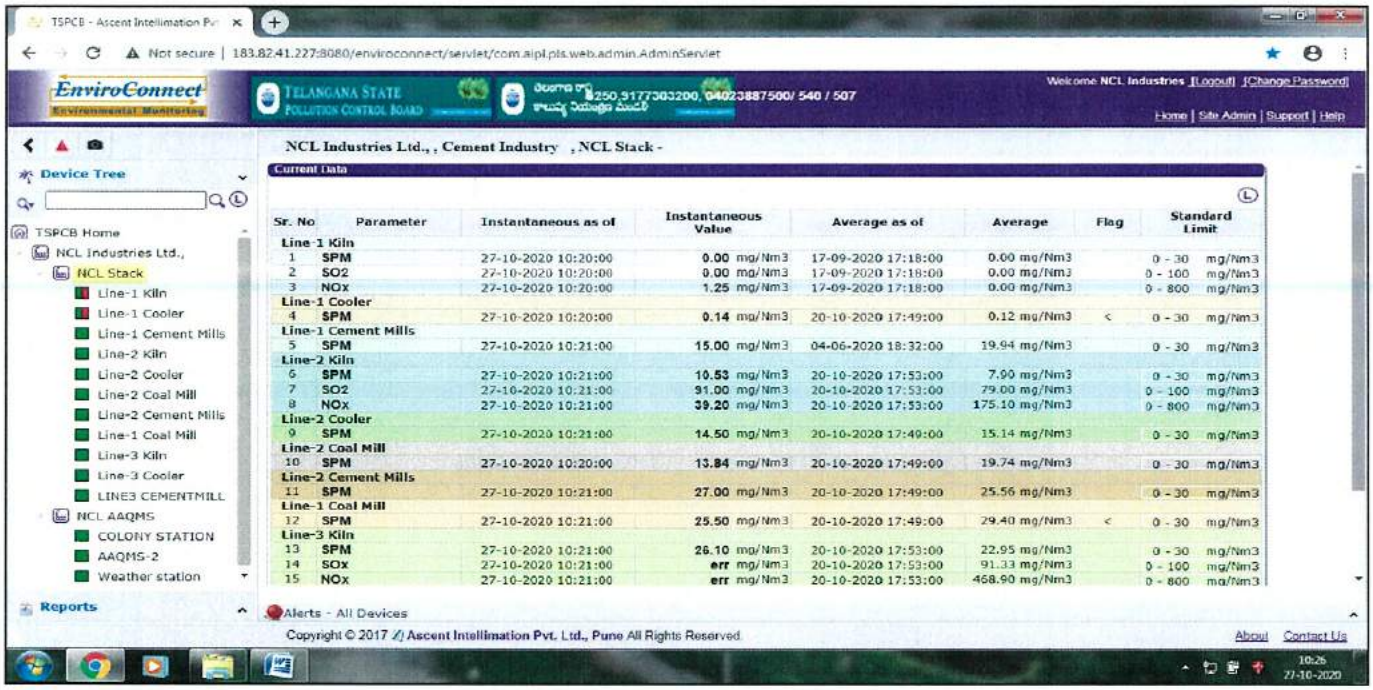
x)	Requisite funds shall be embarked towards the total capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry of environments, Forest and climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Chennai. The funds so provided shall not be diverted for any other purpose.	Being followed The funds have been embarked towards the total capital cost & recurring cost/annum for environmental pollution control measures. The funds earmarked have not been diverted for any other purpose.
x)	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zillah Perished/ Municipal Corporation, Urban Local Body & the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearances letter shall also be put on the web site of the company by the proponent.	A copy of the EC was sent to Panchayat.
xi)	The project proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website & shall update the same periodically. It shall simultaneously be sent the Regional Office of MOEFCC at Chennai, The respective Zonal Office of CPCB & the SPCB. The criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored & displayed at a convenient location near the main gate of the company in the public domain.	Uploaded the status of compliance of the stipulated EC conditions, including results of monitored data on their website & updating the same periodically. The monitored data has displayed at the main gate. company's web site: https://nclind.com/environmental-statement.html The monitored data has displayed at the main gate **Annexure –XIV**
xii)	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both the copies as well as by e-mail) to the Regional Office of MOEFCC, the respective Zonal Office of CPCB. And the SPCB The Regional Office of this Ministry at Chennai / CPCB / SPCB shall monitor the stipulated conditions.	Submitting six monthly compliance reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both the copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB. The Regional Office of this Ministry at Chennai / CPCB / TSPCB shall monitor the stipulated conditions. Enclosed the copy of submitted letter **Annexure – XV**

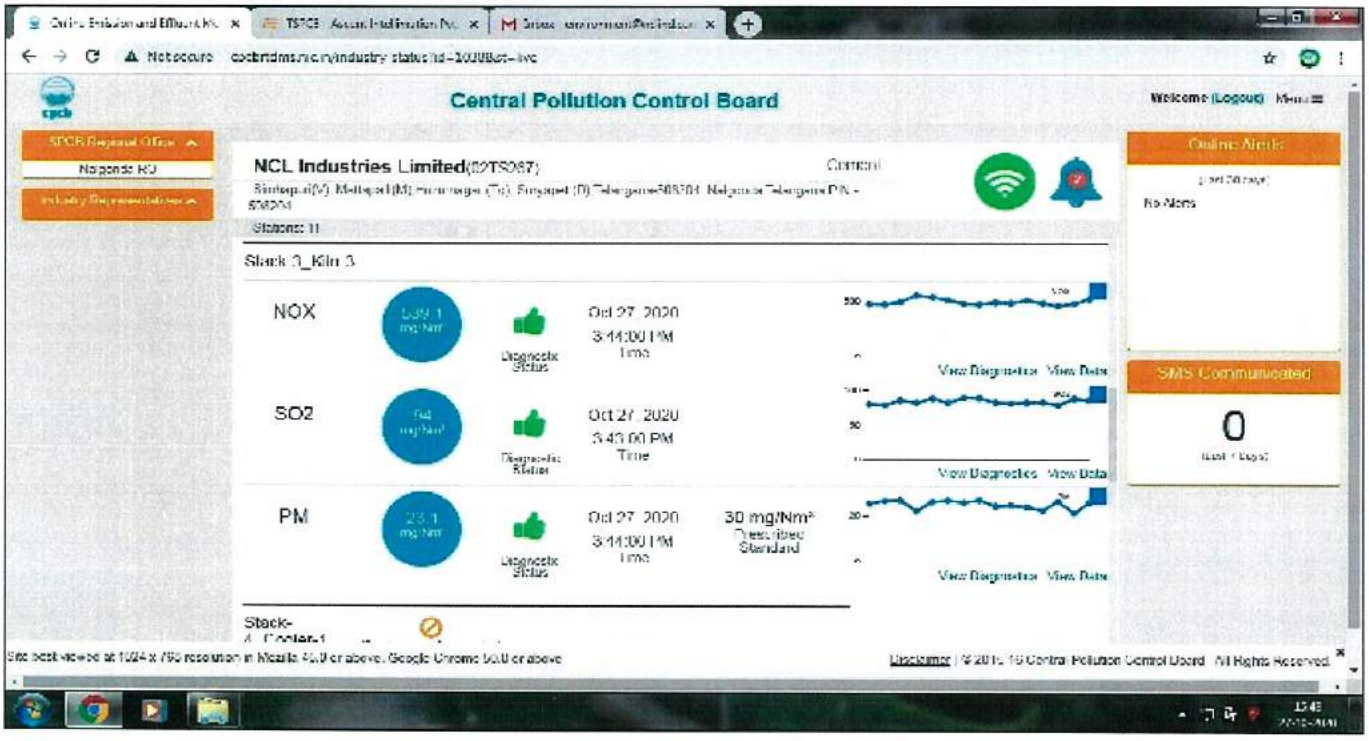
xiii)	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State PCB as prescribed under the Environmental (Protection) Act, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions & shall also be sent to the Regional Office of the MOEFCC at Chennai by e-mail.	Form - V Submitting to TSPCB and also uploaded in company's web site: https://nclind.com/environmental-statement.html **Annexure – XVI**
v)	The project proponent shall inform the public that project has been accorded environmental clearance by the Ministry & copies of the clearance letter are available with the SPCB and may also be seen at web site of the Ministry of environment, Forests and Climate Change (MoEFCC) at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional Office.	News paper advertisement in two local news papers namely The Hindu & Andhra Jyothi and submitted the copy of same to MoEFCC, RO.
)	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	The date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work was informed to RO as well as the Ministry.

ANNEXURE I

NCL INDUSTRIES LIMITED: SIMHAPURI			
On-line Continuous Stack Monitoring System (OCSEMS) and Continuous Ambient Air Quality Monitoring Systems (CAAQMS) Stations			
S.No.	Stack attached	Type of Monitoring System (Emission / Effluent / CAAQMS)	Stack ID
1	Line-1 Kiln	Emission	NCL Industries Limited-Stack_1_Kiln_1
2	Line-1 Cooler	Emission	NCL Industries Limited-Stack_4_Cooler_1
3	Line-1 Cement Mills	Emission	NCL Industries Limited-Stack_9_Cement Mill_1
4	Line-1 Coal Mill	Emission	NCL Industries Limited-Stack_7_CoalMill_1
5	Line-2 Kiln	Emission	NCL Industries Limited-Stack_2_Kiln_2
6	Line-2 Cooler	Emission	NCL Industries Limited-Stack_5_Cooler_2
7	Line-2 Coal Mill	Emission	NCL Industries Limited-Stack_8_CoalMill_2
8	Line-2 Cement Mill	Emission	NCL Industries Limited-Stack_10_CementMill_2
9	Line-3 Kiln	Emission	NCL Industries Limited-Stack_3_Kiln_3
10	Line-3 Cooler	Emission	NCL Industries Limited-Stack_6_Cooler_3
11	Line-3 Cement Mill	Emission	NCL Industries Limited-Stack_11_Cement Mill_3
12	Colony	CAAQMS	NCL Industries Limited-CAAQMS_01_Colony
13	Cement Plant	CAAQMS	NCL Industries Limited-CAAQMS_02_CementPlant

TSPCB & CPCB OCEMS & AAQMS UPLOADING SITES

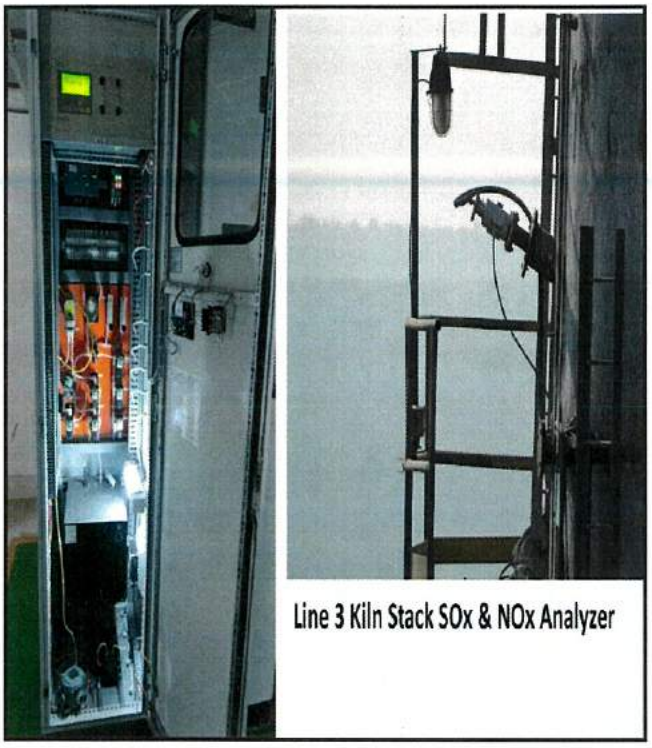




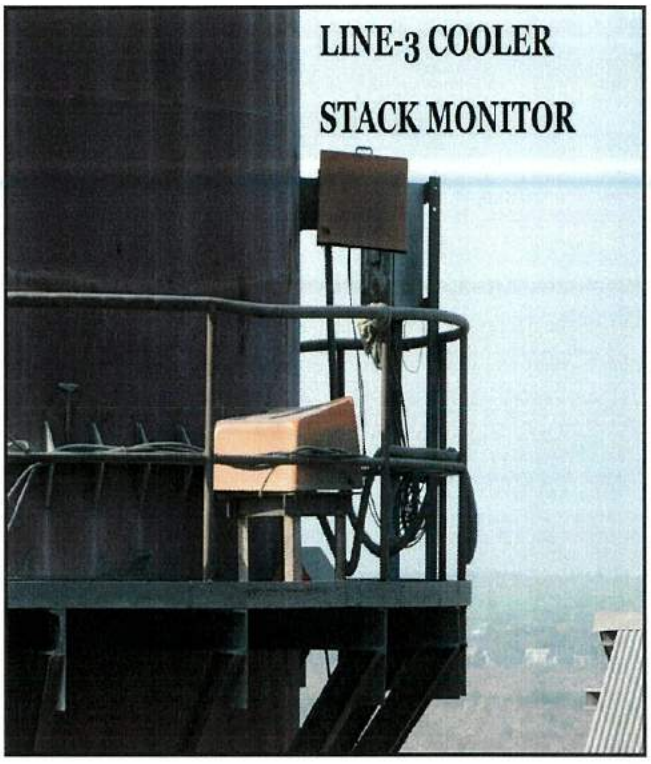
ONLINE CONTINUES AMBIENT AIR QUALITY MONITORING STATION

IN COLONY AND PLANT

ONLINE CONTINUES STACK MONITORING EQUIPMENTS



Line 3 Kiln Stack SOx & NOx Analyzer



LINE 3 CEMENT MILL DUST MONITORING SYSTEM

ANNEXURE - II

NCL INDUSTRIES LIMITED: SIMHAPURI			
Source of Pollution and Details of Air Pollution Control System			
S.No	Source of Pollution	Pollution Control Equipment Provided	Stack Height in Mts above GL
1	Attached to Kiln -1 & Raw Mill-1	Pulse Jet Bag Filter	110
2	Attached to Kiln -2 & Raw Mill-2	RABH	140
3	Attached to Kiln -3 & Raw Mill-3	Pulse Jet Bag Filter	130
4	Attached to Cooler-1	ESP	55
5	Attached to Cooler- 2	ESP	55
6	Attached to Cooler -3	ESP	55
7	Attached to Coal Mill-1	Bag Filter	30
8	Attached to Coal Mill-2	Bag Filter	50
9	Attached to Cement Mill-1	Bag Filter	30
10	Attached to Cement Mill-2	Bag Filter	39
11	Attached to Cement Mill-3	Bag Filter	55
12	Attached to Packer-1	Bag Filter	30
13	Attached to Packer-2	Bag Filter	30
14	Attached to Packer-3	Bag Filter	30
15	Attached to Lime Stone Crusher	Bag Filter	30
16	Attached to Blending Silo Top	Bag Filter	55
17	Attached to Pre heater Top	Bag Filter	116
18	Attached to 2875 KVA DG Set	Silencer	10
19	Attached to 300 KVA DG Set (Stand By)	Silencer	10

LIST OF POLLUTION CONTROL EQUIPMENTS & BAG FILTERS DETAILS

S.No	Group	Application	Eqpt No.	Tag	Capacity m3/hr	No of Bags	Bag Size in Mtrs	Rated KW
LINE 1								
1	Kiln	Preheater Vent - Bucket Elevator TOP	TM	BF	10000	54	0.146 x 3.05	15
2		Kiln Feed Venting BF2 - TM1	TM1	BF2	10000	60	0.147X3.616	15
3		Preheater Bucket Elevator Bottom	TM1	BF1	6000	48	0.125X2.200	5.5
4	PJ B H	Pulse Jet Bag House	131	BH1	245000	1280	0.149X8.095	560
5	Cooler	ESP			255000	NA	NA	225
6	Coal Mill	Mill Bag Filter (Vent)	Big	BF1	25020	210	0.147X3.050	110
7		Hopper Bag Filter	Small	BF2	10000	90	0.147X3.050	
8		Coal Pumping	New	BF3	8000	60	0.149 x 3.660	15
9	Raw Mill 3	Vent Bag Filter		BF1	24240	90	0.146 x 3.050	55
10		Classifier Bag Filter		BF2	8180	60	0.146 x 3.05	15
11		Silo Top	TM1	BF	10000	60	0.146 x 3.05	15
12	Cement Mill	Mill Bag Filter			45000	540	0.146 x 3.05	160
13	Packing Plant	Packer			15000	125	0.125 x 2.8	22
LINE 2								
14	Line-2 Crusher	Vent bag filter	211	BF 1	35000	192	0.149 X 3.660	75
15		Discharge at 211BC5	211	BF2	20000	108	0.149 X 3.66	5.5
16		Discharge at 211BC4	211	BF3	6000	49	0.125X2.5	5.5
17	VRM	additive hoppers top	351	BF1	20000	120	0.150 X 3.6M	22
18		B/F at 351BC1	351	BF2	6000	49	0.150 X 3.6M	5.5
19	VRM	Recirculation bucket elevator	361	BF1	27500	168	0.150 X 3.6	37
20		Silo bucket elevator	371	BF1	16500	100	0.150 X 3.6	30
21	RABH	VRM Bag House	431	BH1	640000	1680	0.292 X 10.8	500

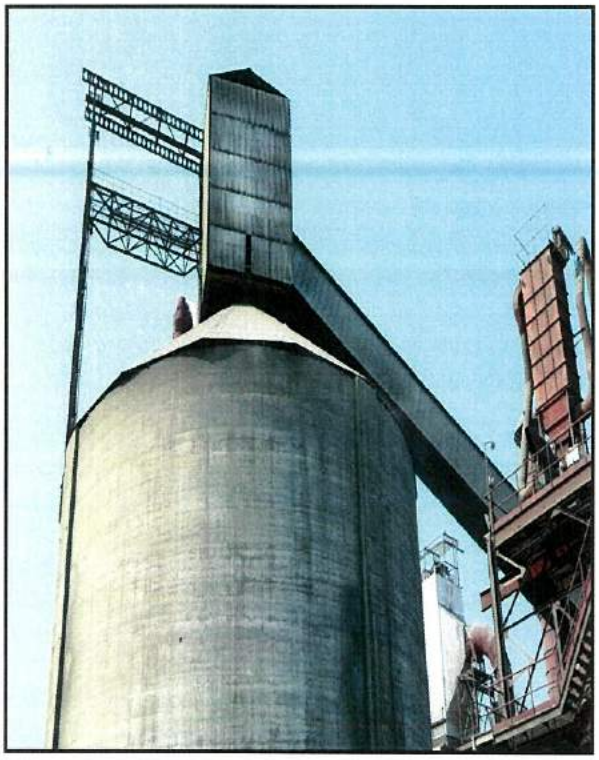
22	B.Silo & KILN FEED	Blending Silo TOP	412	BF1	11000	64	0.150 X 3.6	22
23		Blending Silo	422	BF1	5500	36	0.150 X 3.6	15
24	Pyro process	Pre heater top	422	BF2	8800	36	0.150 X 3.6	15
25		Clinker Silo Top	491	BF1	8000	36	0.150 X 3.6	11
26	Cooler	ESP Vent Fan	471	FN8	NA	NA	NA	200
27	Coal Mill	BH Top	482	BF2	8800	54	0.150 X 3.6	15
28		Vent B F screw conveyer	482	BF3	16500	54	0.150 X 3.6	15
29		Mill Bag House	462	BH1	145200	1320	0.150 X 3.6	550
30	C & CT	Clinker Extraction BC1, 2	511	BF1	3300	54	0.150 X 3.6	11
31	Cement Mill	Transfer tower BC3 & BC4	511	BF2	3300	54	0.150 X 3.6	5.5
32	Cement Mill	Dedusting Bag filter fan at hopper top	531	BF1	10000	36	0.150 X 3.6	11
33		Clinker Hopper Discharge top	531	BF2	5500	36	0.150 X 3.6	11
34		Venting feeder	561	BF3	3300	54	0.150 X 3.6	55
35		Separator vent	561	BF2	21300	168	0.150 X 3.6	250
36		Cement mill vent Bag Filter	561	BF1	45483	448	0.149 x 4.5	75
37		Dedusting Bag Filter Fan	561	BF4	11000	60	0.150 X 3.5	15
38		Fly ash Silo Top	591	BF5	1000	36	0.150 X 3.6	15
39		Fly ash Silo Discharge	591	BF6	5500	36	0.150 X 3.6	11
40	Packing Plant	Cement Silo Top	611	BF1	6600	36	0.150 X 3.6	11
41		Big Bag Filter	611	BF2	27500	168	0.150 X 3.6	37
42		Packer vent Bag Filter	611	BF3	16500	100	0.150 X 3.6	22
Line 3								
43	Kiln feed	Vent bag filter for bin feed	411	BF1	10000	76	0.149 x 3.665	15
44		Vent bag filter for Kiln feed	411	BF2	14500	110	0.149 x 3.665	22
45	Kiln feed	Vent bag filter for Kiln feed B/E hood,431 AS3	431	BF1	4000	30	0.149 x 3.665	7.5
46	Cooler	Vent bag filter for cooler discharge DPC	471	BF1	3500	30	0.149 x 3.665	5.5

47	Clinker transport	Vent bag filter for 491	491	BF1	18600	144	0.149 x 3.665	30
48		Vent bag filter for 491	491	BF2	17600	140	0.149 x 3.665	22
49		Vent bag filter for 491	491	BF3	7300	56	0.149 x 3.665	11
50		Vent bf for 491 DP4	491	BF4	7300	56	0.149 x 3.665	11
51		Vent bag filter for 491 BC1 discharge, 491 BC2	491	BF5	10500	80	0.149 x 3.665	15
52		Vent bag filter for 511 BC3 discharge hood,	491	BF6	6300	48	0.149 x 3.665	11
53		Vent bag filter for 511 BC3A discharge hood,	491	BF7	6300	48	0.149 x 3.665	11
54		Vent bag filter for 511 BC3B discharge hood,	491	BF8	10500	80	0.149 x 3.665	15
55	PJBF	Vent bag filter for PJBH dust extraction air slides and Hot meal bin, SFM	432	BF1	13400	100	0.149 x 3.665	22
56	Coal Dosing	Vent bag filter for fine coal bin L91 BI1	L91	BF1	3000	24	0.149 x 3.665	5.5
57		Vent bag filter for Fine coal bin L91 BI2	L91	BF2	3000	24	0.149 x 3.665	5.5
58	Cement grinding	Vent bag filter for Cement mill weigh feeders	531	BF1	9600	80	0.149 x 3.665	15
59		Vent bag filter for 531 BC2	531	BF2	5700	48	0.149 x 3.665	11
60		Vent bag filter for Cement mill hoppers	531	BF1A	17600	140	0.149 x 3.665	22
61		Vent bag filter for 521 BC1 feed point	521	BF1	3000	24	0.149 x 3.665	5.5
62		Vent bag filter for 521 BC1 disc. hood & 521 BC2 feed board	521	BF2	6000	48	0.149 x 3.665	11
63		Vent bag filter for cement mill re-circulation	571	BF1	8250	64	0.149 x 3.665	15
64		Vent bag filter for 591 AS	591	BF1	5000	40	0.149 x 3.665	7.5
65	Cement grinding	Cement mill vent BF	561	BF1	58000	448	0.149 x 4.565	110
66		Separator vent bag filter	581	BF1	27000	210	0.149 x 4.565	410
67	Cement silo	Vent bf for silo top	611	BF1	7500	64	0.149 x 3.665	11
68		Vent bag filter for	611	BF2	3500	30	0.149 x 3.665	5.5

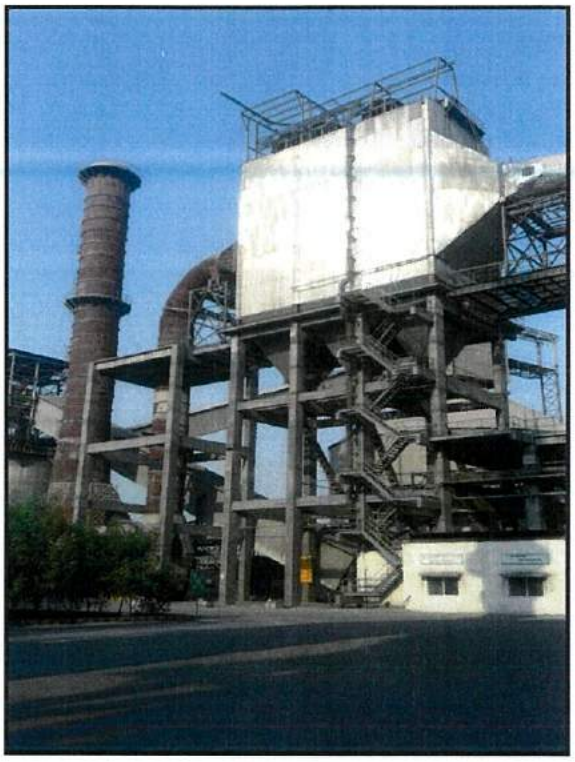
		collecting bin						
69	Packing Plant	Vent bag filter for bucket elevator & air slide	611	BF3	5000	40	0.149 x 3.665	5.5
70		Roto-Packer vent bf	641	BF1	34000	266	0.149 x 3665	15
71		De-dusting bag filter	641	BF2	16000	140	0.149 x 3.665	45
72	Coal conveying	Vent bag filter for bin	482	BF2	5000	40	0.149 x 3.665	11
73		Vent bag filter	L91	BF3	8000	64	0.149 x 3.665	11
74	PJBH	Pulse Jet Bag filter for pre heater flue gases	432	BH1	490000	2560	0.160 x 8.0	800
75	Cooler	Cooler de-dusting	471	EP1	380000	NA	NA	200

PRODUCTS STORAGE SILOS WITH BAG FILERS INSTALLED AT TOP

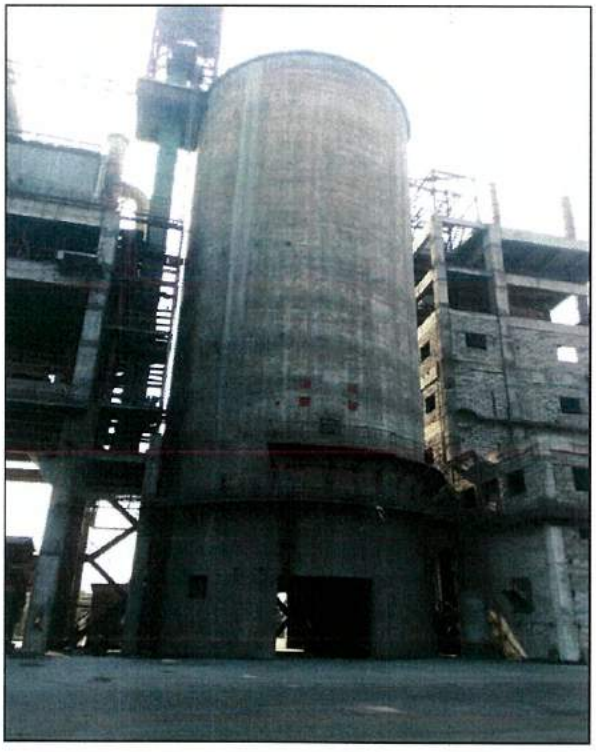
Line3 Clinker Silo



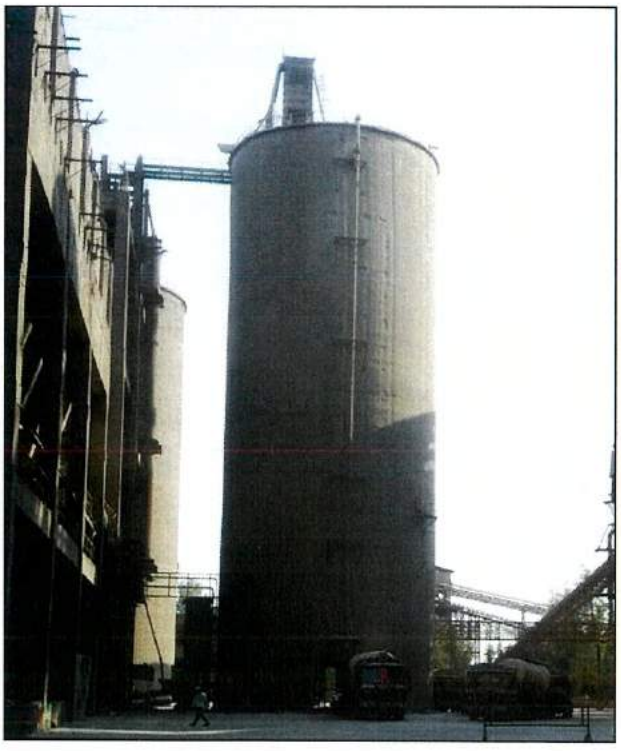
Line 3 ESP



LINE 3 Cement Silo



LINE2 Fly Ash Silo

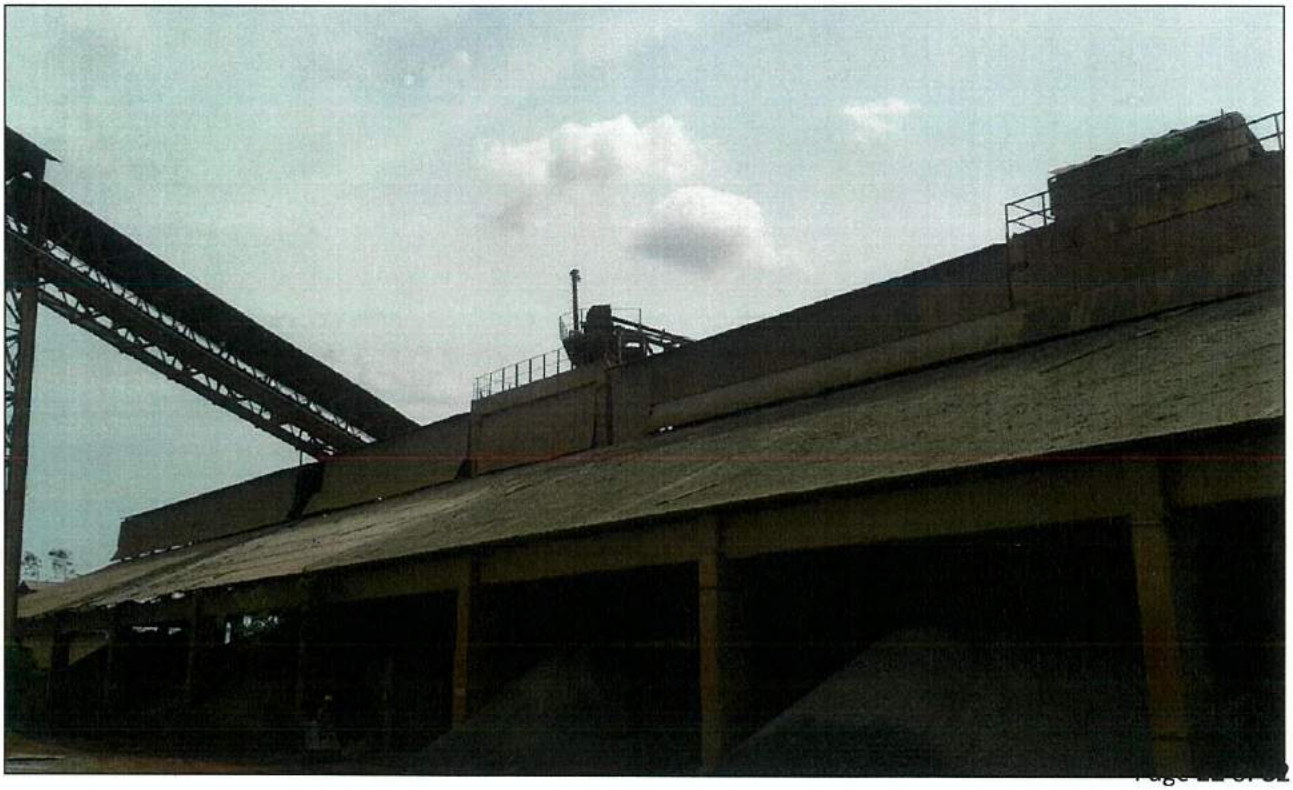


BAG FILTERS ARE INSTALLED AT TRANSFER TOWERS

PJBH & RABH

Annexure -III

RAW MATERIAL STORAGE SHEDS



COAL STORAGE SHEDS

ANNEXURE –IV

FOREST DEPARTMENT PERMISSION LETTER

GOVERNMENT OF TELANGANA
FOREST DEPARTMENT

From:
Sri. G. Mukund Reddy, Dy.C.F.,
District Forest Officer,
Suryapet.

To:
The Managing Director,
M/s NCL Industries Ltd.,
Hyderabad.

RC.No.75/2017/S, Dt:27.11.2018

Sir,

Sub : TSFD - TSPCB - RO - NLG - Environmental Public Hearing (EPH) - M/s NCl Industries Ltd. has proposed for enhancement of Sulthanpur Thanda Lime stone Mine capacity from 0.05 MTPA to 1.0 MTPA located at Sy.No.540 (P), Pedaveedu (V), Mattampally (M), Suryapet District - Status report - Reg.

Ref: 1. NCL Industries Ltd., Ref.No.NCL/Forests Dept, Dt.01.09.2018.
2. NCL Industries Ltd., Ref.No.NCL/Forests Dept, Dt.26.11.2018.

***

With reference to the subject and reference cited above, the M/s NCL Industries Ltd., had requested for Status report for the proposal of enhancement of Sulthanpur Thanda Lime Stone Mine production capacity from 0.05 MTPA to 1.0 MTPA located in Sy.No.540 (P), of Pedaveedu (V), Mattampalli (M), Suryapet District in mine lease area of 42.83 Ha.

The undersigned had inspected the mining area together with Forest Range Officer, Huzurnagar 15th September, 2018. The plan submitted by M/s NCL Industries Ltd., showing the Mining Lease area (With GPS Readings) for Limestone Deposit in Sy.No.540 over an extent of Ac. 105.32 gts (42.83 Ha) in Pedaveedu Village, Mattampalli Mandal, Suryapet District (Erstwhile Nalgonda District), Duly approved by Tahasildar, Mattampally Mandal and Asst. Director of Mines & Geology, Miryalaguda has also been referred.

It is confirmed that:

1. The said location does not fall in the Forest Area, but the area is adjacent to the Reserve Forest about 170 meters and it should comply recent guidelines/ Circular from the MoEF.
2. There are no dispute issues with Forest Department but the wasta material mainly the panel cut portions is being dumped along road side even in Reserve Forest areas which has to be removed and in future waste disposal to be in designated areas as per mine plan.
3. The area is completely preexisting mining area of NCL Industries Ltd., from 1996. Hence the green cover other conditions that are in mining plan to be properly implemented.
4. No perennial nallah or streams are seen within the area.
5. There are no endangered species of flora existing in the area and it has neither ecological nor economic importance and normal species of brushes and bushes are only seen.
6. No sanctuary and national parks does not exist within the above area.

Hence, it is inform that, there are no issues for enhancement of Sulthanpur Thanda Lime Stone Mine production capacity from 0.05 MTPA to 1.0 MTPA located in Sy.No.540 (P), of Pedaveedu (V), Mattampalli (M), Suryapet District in mine lease area of 42.83 Ha.

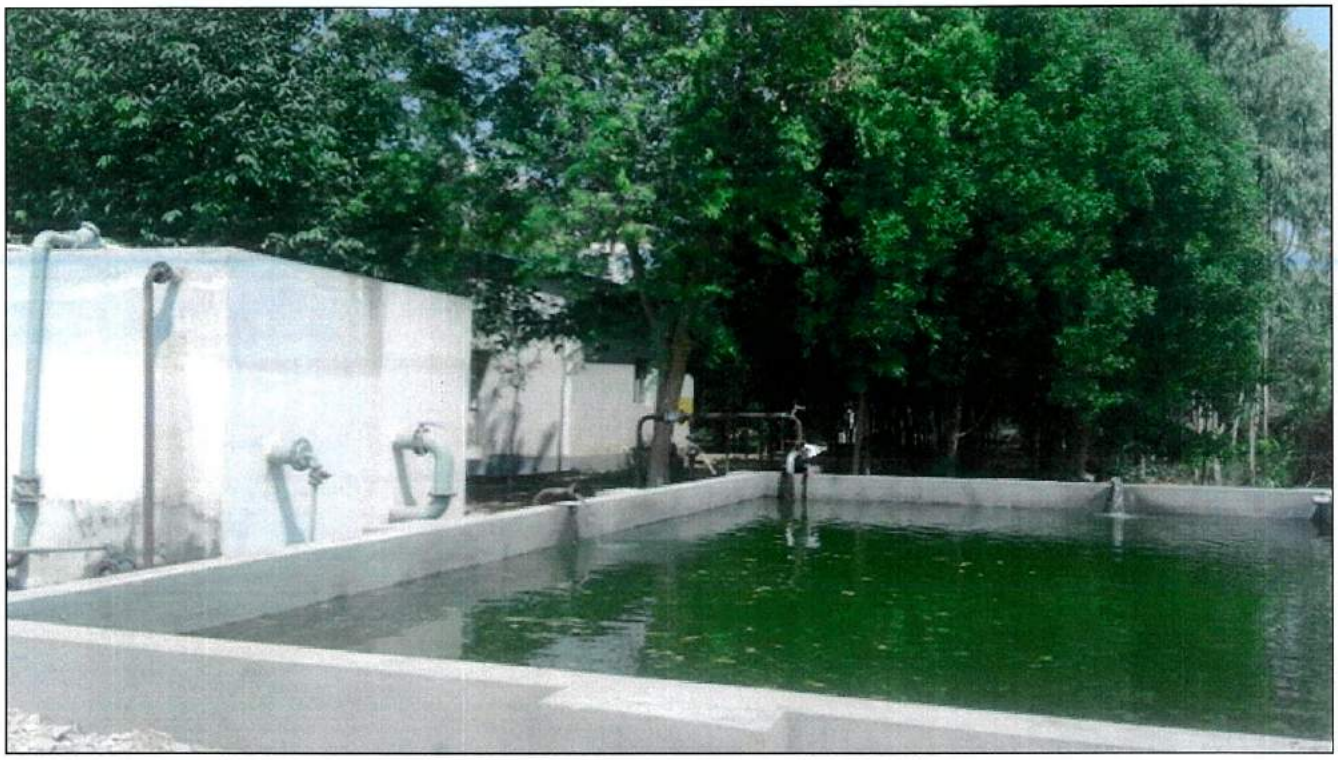
District Forest Officer,
Suryapet.

Annexure -V

PRECURSORY MASSEURS TAKEN FOR REDUCE WATER CONSUMPTION

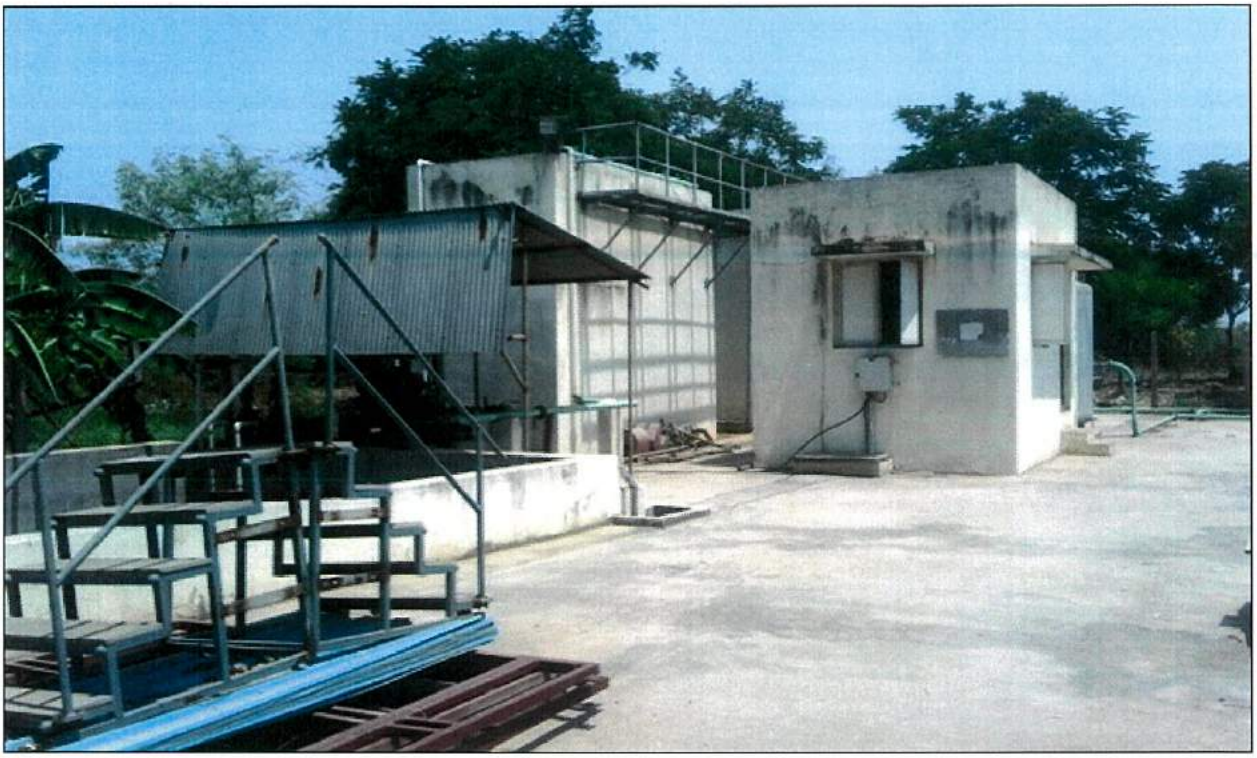
RAIN WATER STORAGE IN MINESRAIN HARVESTING PITS

RO REJECT WATER STORING & USING FOR PLANTATION & ROAD WETTING

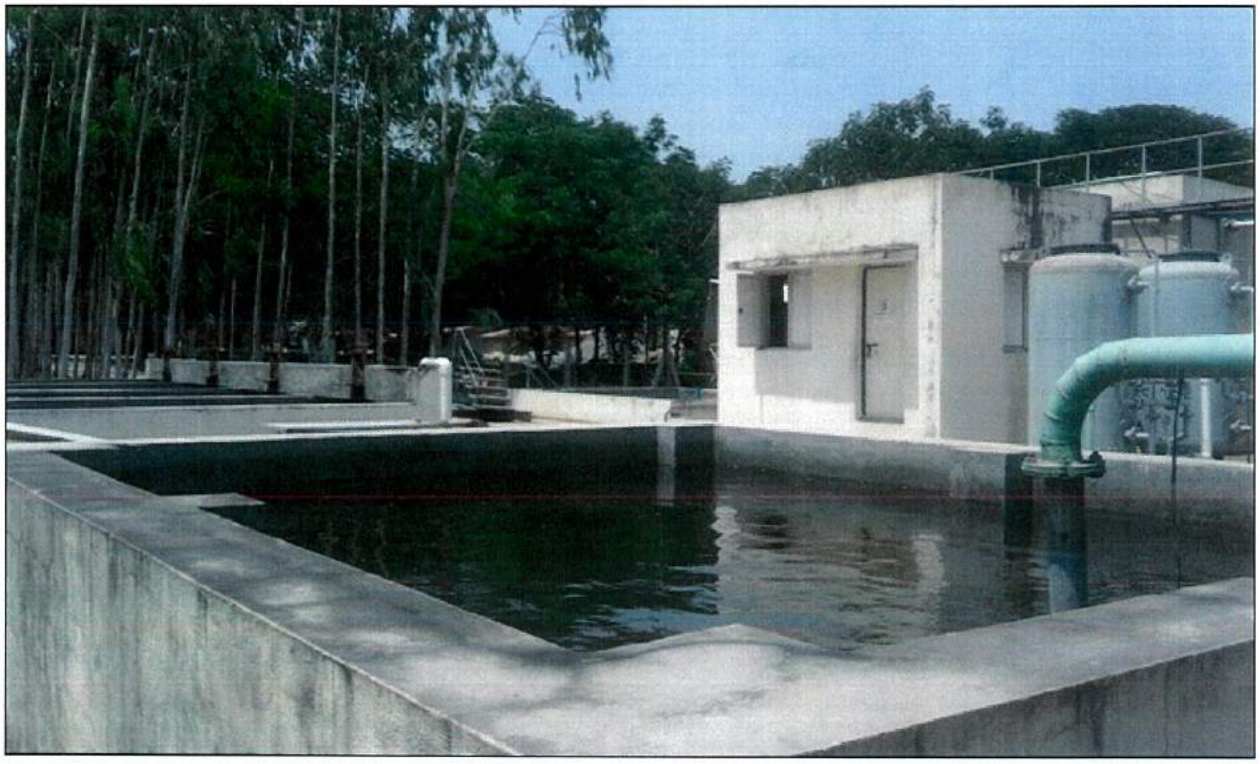


WATER DRIPPING ARRANGEMENT

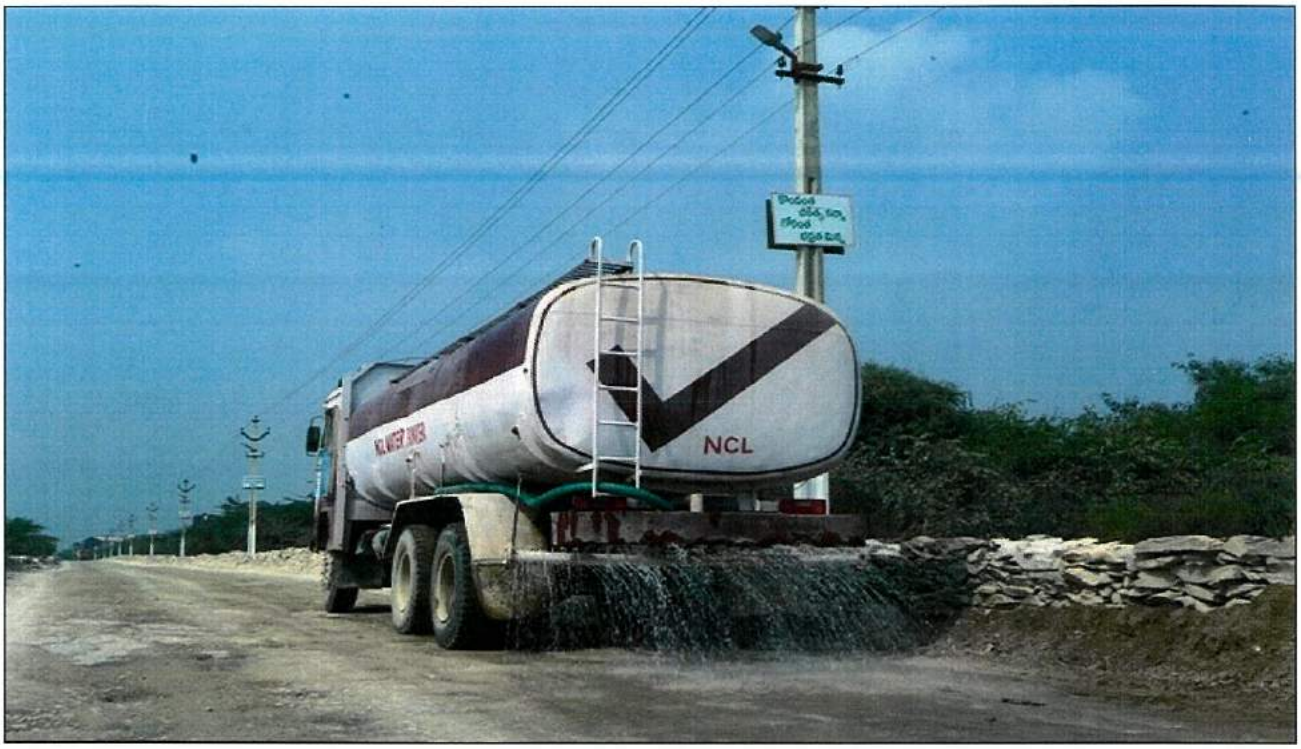
SEWAGE TREATMENT PLANT (STP) IN COLONY

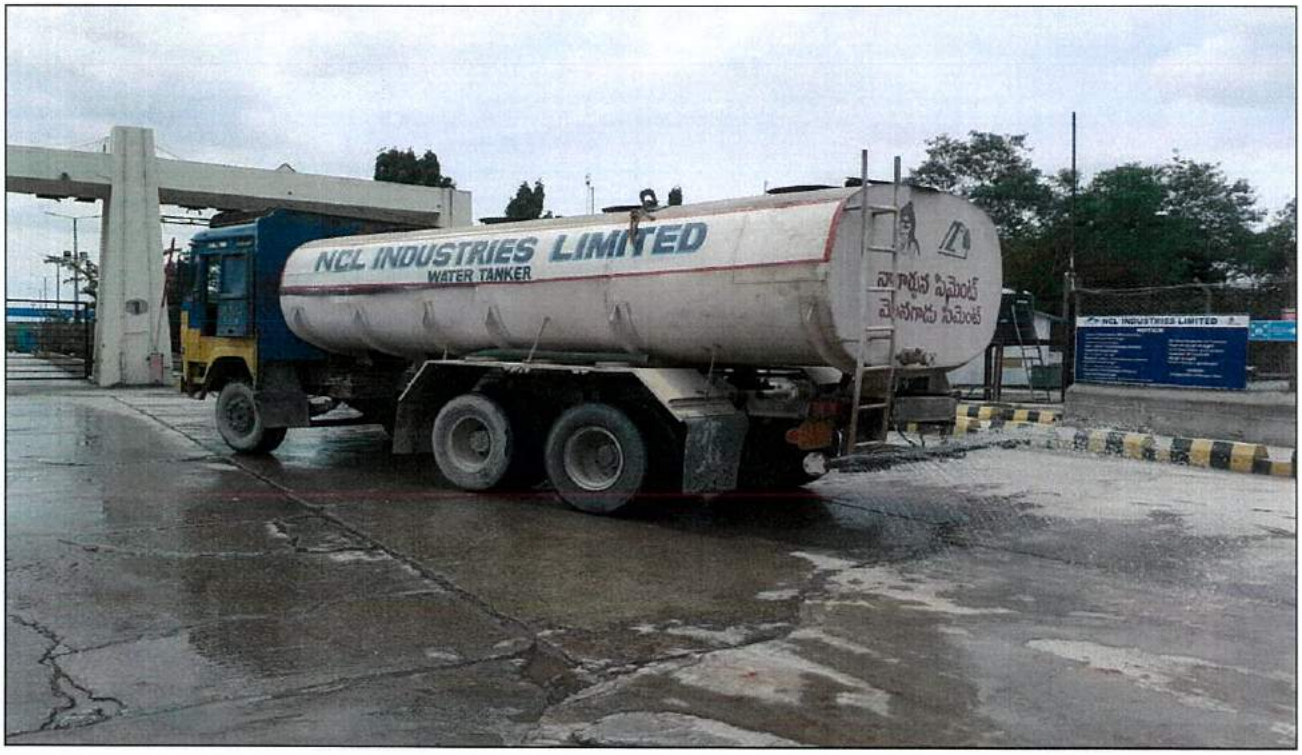


STP TREATED WATER USED FOR GREEN BELT DEVELOPMENT



Road wetting with water tanker at Mines Roads & Plant





ROADS ARE CLEANING WITH ROAD SWEEPING MACHINES

1. **MODEL TPS-VACTRUCK-750 (HD-SM)**

   TRUCK MOUNTED HEAVY DUTY INDUSTRIAL VACUUM CLEANING MACHINE WITH SWEEPING ATTACHMENT AND – OPTIONAL WATER SPRAY / JETTING SYSTEM

2. **MODEL : TPS VAC NEEP/3D, MAKE TPS INFRASTRUCTURE LTD**

FIXED WATER SPRINKLERS ARE ARRANGED ON ROADS

TRUCKS ARE COVERED WITH TARPAULIN & CLOSED CONTAINERS

THIRD PARTY EMISSION MONITORINGREPORTS AT CO-PROCESS TIME

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Vimta
Driven by Quality. Inspired by Science.

ISSUED TO:
M/S NCL INDUSTRIES LIMITED.,
CEMENT MATTAPALLY
SIMHAPURI, MATTAPALLI MANDAL
SURYAPET DIST,
TELANGANA STATE-508204.
INDIA.

Report Number : **VLL/VLS/21/04937/001**
Issued Date : **2021.07.30**
P.O. Number : **SO-CEMMAP-2021-07-142**
P.O. Date : **28.07.2021**

SAMPLE PARTICULARS : **KILN-2 STACK**

Sample Registration Date	: 2021.07.24	Sample Collection Date	: 2021.07.22
Analysis Starting Date	: 2021.07.24	Analysis Completion Date	: 2021.07.30
Test Required	: PM, SO_2, NOx, HCl, HF, CO, CO2, O_2, and TOC.		
Plant Capacity	: **3000 TPD**		
Sample Collected by Vimta Labs Ltd.			

TEST REPORT

Sr. No	Parameters	UoM	Method of Testing	Results	Limits as per GSR 497(E)
1	Stack Height	M	-	140	-
	Sampling point Height	m	-	73.5	
	Diameter of stack	m	-	2.5	--
2	Flue gas temperature	°C	-	118	--
3	Oxygen as O_2	%	Flue Gas Analyzer	8.9	--
4	Velocity of Flue Gas	m/sec	USEPA method-3	11.92	--
5	Carbon Monoxide as CO	mg/Nm³	Flue Gas Analyzer	48.2	--
6	Volumetric Flow Rate	Nm³/Hr	USEPA method-3	1,59,188	--
7	Particulate Matter	mg/Nm³	USEPA method-5	16.9	**< 30.0**
8	Sulphur Dioxide as SO_2	mg/Nm³	USEPA method -06	22.1	**< 100.0**
9	Oxides of Nitrogen as NO_2	mg/Nm³	USEPA method -07	516	**< 800.0**
10	Hydrogen Chloride as HCl	mg/Nm³	USEPA method -26	3.9	**< 10.0**
11	Hydrogen Fluoride as HF	mg/Nm³	USEPA method -13	0.51	**< 1.0**
12	Total Organic Compounds TOC	mg/Nm³	USEPA method -40 & MM5(10)	4.3	**< 10.0**

All the Values are represented at 10% O_2

Dr. SubbaReddy Mallampati
Group Leader-Environment

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P.O. Number : **SO-CEMMAP-2021-07-142**
P.O. Date : **28.07.2021**

SAMPLE PARTICULARS : **KILN-2 STACK**

Sample Registration Date	:	2021.07.24	Sample Collection Date	:	2021.07.22
Analysis Starting Date	:	2021.07.24	Analysis Completion Date	:	2021.07.30
Test Required	:	Hg & its compounds, Cd + Tl its compounds, Sb+ As+ Pb+ Co+ Cr+ Cu+ Mn+ Ni+ V+ Their compounds			

Sample Collected by Vimta Labs Ltd.

TEST REPORT

Sr. No	Parameters	UoM	Method of Testing	Results	Limits as per GSR 497(E)
1	**Mercury as Hg + their Compound**	mg/Nm³	USEPA method -29	**<0.001**	< 0.05
2	**Cadmium + Thallium (Cd + Tl) + their Compound**			**<0.001**	< 0.05
3	Chromium as Cr + their Compound			0.024	--
	Manganese as Mn + their Compound			0.019	
	Arsenic as As + their Compound			0.012	
	Antimony as Sb + their Compound			0.027	
	Lead as Pb + their Compound			0.016	
	Cobalt as Co + their Compound			0.019	
	Copper as Cu + their Compound			0.013	
	Nickel as Ni + their Compound			0.015	
	Vanadium as V + their Compound			0.010	
	Sb+ As+ Pb+ Co+ Cr+ Cu+ Mn+ Ni+ V+ Their compounds			**0.155**	< 0.5

All the values are represented at 10% O_2

Dr. SubbaReddy Mallampati
Group Leader-Environment

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Report Number : **VLL/VLS/21/04937/001**
Issued Date : **2021.07.30**
P.O. Number : **SO-CEMMAP-2021-07-142**
P.O. Date : **28.07.2021**

SAMPLE PARTICULARS : KILN-2 STACK

Sample Registration Date	: 2021.07.24	Sample Collection Date	: 2021.07.22
Analysis Starting Date	: 2021.07.24	Analysis Completion Date	: 2021.07.30
Test Required	: PCDD& PCDF		
Sample Collected By Vimta Labs Ltd.			

TEST REPORT

Sr. No	Parameters	UoM	Results
1	2,3,7,8-TCDF	ng TEQ /Nm³	0.0013
2	1,2,3,7,8-PeCDF		0.0008
3	2,3,4,7,8-PeCDF		0.0017
4	1,2,3,4,7,8-HxCDF		0.0006
5	1,2,3,6,7,8-HxCDF		0.0006
6	2,3,4,6,7,8-HxCDF		0.0003
7	1,2,3,7,8,9-HxCDF		0.0011
8	1,2,3,4,6,7,8-HpCDF		0.0017
9	1,2,3,4,7,8,9-HpCDF		0.0011
10	OCDF		0.0023
11	2,3,7,8-TCDD		0.0011
12	1,2,3,7,8-PeCDD		0.0023
13	1,2,3,4,7,8-HxCDD		0.0031
14	1,2,3,6,7,8-HxCDD		0.0012
15	1,2,3,7,8,9-HxCDD		0.0010
16	1,2,3,4,6,7,8-HpCDD		0.0029
17	OCDD		0.0038
Total Furans & Dioxins (ng TEQ /Nm³)			**0.0267**
Total Furans & Dioxins (ng TEQ /Nm³ at 10% O_2 Concentration)			**0.0243**
Limits as per GSR 497(E)			**<0.1**

Method of Testing: As per USEPA 23 A & 8290
Instruments used: Auto spec Premier (HRGC/HRMS). Detection Limit: 0.01ng

Dr. SubbaReddy Mallampati
Group Leader-Environment

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TELANGANA STATE-508204.
INDIA.

Report Number	:	**VLL/VLS/21/04937/002**
Issued Date	:	**2021.07.30**
P.O. Number	:	**SO-CEMMAP-2021-07-142**
P.O. Date	:	**28.07.2021**

SAMPLE PARTICULARS : **KILN-3 STACK**

Sample Registration Date	:	2021.07.24	Sample Collection Date	:	2021.07.23
Analysis Starting Date	:	2021.07.24	Analysis Completion Date	:	2021.07.30
Test Required	:	PM, SO_2, NOx, HCl, HF, CO, CO_2, O_2, and TOC.			
Plant Capacity	:	**3000 TPD**			
Alternate Fuel used	:	**400 LPD**			
Sample Collected by Vimta Labs Ltd.					

TEST REPORT

Sr. No	Parameters	UoM	Method of Testing	Results	Limits as per GSR 497(E)
1	Diameter of stack	m	-	7.0	--
2	Flue gas temperature	^0C	-	124	--
3	Oxygen as O_2	%	Flue Gas Analyzer	8.3	--
4	Velocity of Flue Gas	m/sec	USEPA method-3	4.32	--
5	Carbon Monoxide as CO	mg/Nm^3	Flue Gas Analyzer	60.3	--
6	Volumetric Flow Rate	Nm^3/Hr	USEPA method-3	441949	--
7	Particulate Matter	mg/Nm^3	USEPA method-5	17.8	**<30.0**
8	Sulphur Dioxide as SO_2	mg/Nm^3	USEPA method -06	23.9	**<100.0**
9	Oxides of Nitrogen as NO_2	mg/Nm^3	USEPA method -07	455.4	**<800.0**
10	Hydrogen Chloride as HCl	mg/Nm^3	USEPA method -26	4.9	**<10.0**
11	Hydrogen Fluoride as HF	mg/Nm^3	USEPA method -13	0.58	**<1.0**
12	Total Organic Compounds TOC	mg/Nm^3	USEPA method -40 & MM5(10)	5.9	**< 10.0**

All the Values are represented at 10% O_2

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INDIA.

Report Number : **VLL/VLS/21/04937/002**
Issued Date : **2021.07.30**
P.O. Number : **SO-CEMMAP-2021-07-142**
P.O. Date : **28.07.2021**

SAMPLE PARTICULARS : **KILN-3 STACK**

Sample Registration Date	:	2021.07.24	Sample Collection Date	:	2021.07.23
Analysis Starting Date	:	2021.07.24	Analysis Completion Date	:	2021.07.30
Test Required	:	Hg & its compounds, Cd + Tl its compounds, Sb+ As+ Pb+ Co+ Cr+ Cu+ Mn+ Ni+ V+ Their compounds			

Sample Collected By Vimta Labs Ltd.

TEST REPORT

Sr. No	Parameters	UoM	Method of Testing	Results	Limits as per GSR 497(E)
1	**Mercury as Hg + their Compound**	mg/Nm³	USEPA method -29	**<0.001**	**< 0.05**
2	**Cadmium + Thallium (Cd + Tl) + their Compound**			**<0.001**	**< 0.05**
3	Chromium as Cr + their Compound			0.029	--
	Manganese as Mn + their Compound			0.015	
	Arsenic as As + their Compound			0.016	
	Antimony as Sb + their Compound			0.023	
	Lead as Pb + their Compound			0.008	
	Cobalt as Co + their Compound			0.018	
	Copper as Cu + their Compound			0.016	
	Nickel as Ni + their Compound			0.012	
	Vanadium as V + their Compound			0.020	
	Sb+ As+ Pb+ Co+ Cr+ Cu+ Mn+ Ni+ V+ Their compounds			**0.167**	**< 0.5**

All the values are represented at 10% O_2

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Issued Date : **2021.07.30**
P.O. Number : **SO-CEMMAP-2021-07-142**
P.O. Date : **28.07.2021**

SAMPLE PARTICULARS : **KILN-3 STACK**

Sample Registration Date	: 2021.07.24	Sample Collection Date	: 2021.07.23
Analysis Starting Date	: 2021.07.24	Analysis Completion Date	: 2021.07.30
Test Required	: PCDD& PCDF		

Sample Collected by Vimta Labs Ltd.

TEST REPORT

Sr. No	Parameters	UoM	Results
1	2,3,7,8-TCDF	ng TEQ /Nm³	0.0026
2	1,2,3,7,8-PeCDF		0.0010
3	2,3,4,7,8-PeCDF		0.0040
4	1,2,3,4,7,8-HxCDF		0.0009
5	1,2,3,6,7,8-HxCDF		0.0010
6	2,3,4,6,7,8-HxCDF		0.0009
7	1,2,3,7,8,9-HxCDF		0.0016
8	1,2,3,4,6,7,8-HpCDF		0.0017
9	1,2,3,4,7,8,9-HpCDF		0.0006
10	OCDF		0.0024
11	2,3,7,8-TCDD		0.0011
12	1,2,3,7,8-PeCDD		0.0028
13	1,2,3,4,7,8-HxCDD		0.0039
14	1,2,3,6,7,8-HxCDD		0.0028
15	1,2,3,7,8,9-HxCDD		0.0015
16	1,2,3,4,6,7,8-HpCDD		0.0033
17	OCDD		0.0022
Total Furans & Dioxins (ng TEQ /Nm³)			**0.0344**
Total Furans & Dioxins (ng TEQ /Nm³ at 10% O_2 Concentration)			**0.0297**
Limits as per GSR 497(E)			**< 0.1**

Method of Testing: As per USEPA 23 A & 8290
Instruments used: Auto spec Premier (HRGC/HRMS). Detection Limit: 0.01ng

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Report Number : **VLL/VLS/21/04937/003**
Issue Date : **2021.07.30**
P.O. Ref : **SO-CEMMAP-2021-07-142**
P.O. Date : **28.07.2021**

Sample Name :	**Ambient Air Quality Monitoring**
Test Required :	Particulate Matter(PM10), Particulate Matter(PM2.5), Sulphur dioxide as SO2, Nitrogen dioxides as NO2,Ozone (O3),Carbon monoxide (CO),Ammonia (NH3),Lead (Pb),Arsenic (As),Nickel (Ni),Benzene (C6H6) and Benzo (A) Pyrene (BaP).
Sampling Date :	2021-07-22
Analysis Starting Date :	2021-07-25
Sampling Duration: (minutes)	1440
Sampling Location :	**Near Packing Plant-III**

TEST REPORT

Sr. No	Test parameters	UoM	Method of Testing	Results	NAAQS Limits
1	Particulate Matter as PM10	µg/m³	IS-5182(P-23)	84.6	100
2	Particulate Matter as PM2.5	µg/m³	IS-5182(P-24)	40.1	60
3	Sulphur dioxide as SO2	µg/m³	IS-5182 (Part-02)	14.2	80
4	Nitrogen dioxide as NO2	µg/m³	IS-5182 (Part-06)	19.3	80
5	Ozone (O3)	µg/m³	Method-411	7.6	100
6	Carbon monoxide (CO)	mg/m³	IS-5182 (Part-10)	0.511	02
7	Ammonia (NH3)	µg/m³	Indophenol Blue Method	BDL	400
8	Lead (Pb)	µg/m³	IS-5182 (Part-22)	BDL	01
9	Arsenic (As)	ng/m³	IS-5182 (Part-22)	BDL	NA
10	Nickel (Ni)	ng/m³	IS-5182 (Part-22)	0.61	NA
11	Benzene (C6H6)	µg/m³	ASTM D 3686-95	BDL	NA
12	Benzo (A) Pyrene (BaP)	ng/m³	USEPA 8270D	BDL	NA

Remarks:

- Lead Detectable Limit 0.01µg/m³
- Arsenic Detectable Limit 2ng/m³
- Benzene Detectable Limit 2 µg/m³
- B(a)P Detectable Limit 0. 2ng/m³

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Report Number : **VLL/VLS/21/04937/004**
Issue Date : **2021.07.30**
P.O. Ref : **SO-CEMMAP-2021-07-142**
P.O. Date : **28.07.2021**

Sample Name :	Ambient Air Quality Monitoring
Test Required :	Particulate Matter(PM10), Particulate Matter(PM2.5), Sulphur dioxide as SO2, Nitrogen dioxides as NO2,Ozone (O3),Carbon monoxide (CO),Ammonia (NH3),Lead (Pb),Arsenic (As),Nickel (Ni),Benzene (C6H6) and Benzo (A) Pyrene (BaP).
Sampling Date :	2021-07-22
Analysis Starting Date :	2021-07-25
Sampling Duration: (minutes)	1440
Sampling Location :	**Near Crusher Line-II**

TEST REPORT

Sr. No	Test parameters	UoM	Method of Testing	Results	NAAQS Limits
1	Particulate Matter as PM10	µg/m³	IS-5182(P-23)	68.1	100
2	Particulate Matter as PM2.5	µg/m³	IS-5182(P-24)	39.6	60
3	Sulphur dioxide as SO2	µg/m³	IS-5182 (Part-02)	12.4	80
4	Nitrogen dioxide as NO2	µg/m³	IS-5182 (Part-06)	22.3	80
5	Ozone (O3)	µg/m³	Method-411	8.1	100
6	Carbon monoxide (CO)	mg/m³	IS-5182 (Part-10)	0.486	02
7	Ammonia (NH3)	µg/m³	Indophenol Blue Method	BDL	400
8	Lead (Pb)	µg/m³	IS-5182 (Part-22)	BDL	01
9	Arsenic (As)	ng/m³	IS-5182 (Part-22)	BDL	NA
10	Nickel (Ni)	ng/m³	IS-5182 (Part-22)	0.31	NA
11	Benzene (C6H6)	µg/m³	ASTM D 3686-95	BDL	NA
12	Benzo (A) Pyrene (BaP)	ng/m³	USEPA 8270D	BDL	NA

Remarks:

- Lead Detectable Limit 0.01µg/m³
- Arsenic Detectable Limit 2ng/m³
- Benzene Detectable Limit 2 µg/m³
- B(a)P Detectable Limit 0. 2ng/m³

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INDIA.

Report Number : **VLL/VLS/21/04937/005**
Issue Date : **2021.07.30**
P.O. Ref : **SO-CEMMAP-2021-07-142**
P.O. Date : **28.07.2021**

Sample Name :	Ambient Air Quality Monitoring
Test Required :	Particulate Matter(PM10), Particulate Matter(PM2.5), Sulphur dioxide as SO2, Nitrogen dioxides as NO2,Ozone (O3),Carbon monoxide (CO),Ammonia (NH3),Lead (Pb),Arsenic (As),Nickel (Ni),Benzene (C6H6) and Benzo (A) Pyrene (BaP).
Sampling Date :	2021-07-23
Analysis Starting Date :	2021-07-25
Sampling Duration: (minutes)	1440
Sampling Location :	**Near Security Office**

TEST REPORT

Sr. No	Test parameters	UoM	Method of Testing	Results	NAAQS Limits
1	Particulate Matter as PM10	µg/m³	IS-5182(P-23)	71.2	100
2	Particulate Matter as PM2.5	µg/m³	IS-5182(P-24)	43.1	60
3	Sulphur dioxide as SO2	µg/m³	IS-5182 (Part-02)	14.3	80
4	Nitrogen dioxide as NO2	µg/m³	IS-5182 (Part-06)	24.2	80
5	Ozone (O3)	µg/m³	Method-411	9.3	100
6	Carbon monoxide (CO)	mg/m³	IS-5182 (Part-10)	0.536	02
7	Ammonia (NH3)	µg/m³	Indophenol Blue Method	BDL	400
8	Lead (Pb)	µg/m³	IS-5182 (Part-22)	BDL	01
9	Arsenic (As)	ng/m³	IS-5182 (Part-22)	BDL	NA
10	Nickel (Ni)	ng/m³	IS-5182 (Part-22)	0.53	NA
11	Benzene (C6H6)	µg/m³	ASTM D 3686-95	BDL	NA
12	Benzo (A) Pyrene (BaP)	ng/m³	USEPA 8270D	BDL	NA

Remarks:

- Lead Detectable Limit 0.01µg/m³
- Arsenic Detectable Limit 2ng/m³
- Benzene Detectable Limit 2 µg/m³
- B(a)P Detectable Limit 0. 2ng/m³

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INDIA.

Report Number : **VLL/VLS/21/04937/006**
Issue Date : **2021.07.30**
P.O. Ref : **SO-CEMMAP-2021-07-142**
P.O. Date : **28.07.2021**

Sample Name :	Ambient Air Quality Monitoring
Test Required :	Particulate Matter(PM10), Particulate Matter(PM2.5), Sulphur dioxide as SO2, Nitrogen dioxides as NO2,Ozone (O3),Carbon monoxide (CO),Ammonia (NH3),Lead (Pb),Arsenic (As),Nickel (Ni),Benzene (C6H6) and Benzo (A) Pyrene (BaP).
Sampling Date :	2021-07-23
Analysis Starting Date :	2021-07-25
Sampling Duration: (minutes)	1440
Sampling Location :	**Near Colony R.O. Plant**

TEST REPORT

Sr. No	Test parameters	UoM	Method of Testing	Results	NAAQS Limits
1	Particulate Matter as PM10	µg/m³	IS-5182(P-23)	63.2	100
2	Particulate Matter as PM2.5	µg/m³	IS-5182(P-24)	29.6	60
3	Sulphur dioxide as SO2	µg/m³	IS-5182 (Part-02)	11.2	80
4	Nitrogen dioxide as NO2	µg/m³	IS-5182 (Part-06)	18.5	80
5	Ozone (O3)	µg/m³	Method-411	6.3	100
6	Carbon monoxide (CO)	mg/m³	IS-5182 (Part-10)	0.441	02
7	Ammonia (NH3)	µg/m³	Indophenol Blue Method	BDL	400
8	Lead (Pb)	µg/m³	IS-5182 (Part-22)	BDL	01
9	Arsenic (As)	ng/m³	IS-5182 (Part-22)	BDL	NA
10	Nickel (Ni)	ng/m³	IS-5182 (Part-22)	0.29	NA
11	Benzene (C6H6)	µg/m³	ASTM D 3686-95	BDL	NA
12	Benzo (A) Pyrene (BaP)	ng/m³	USEPA 8270D	BDL	NA

Remarks:

- Lead Detectable Limit 0.01µg/m³
- Arsenic Detectable Limit 2ng/m³
- Benzene Detectable Limit 2 µg/m³
- B(a)P Detectable Limit 0. 2ng/m³

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4.3 Prediction of Impact on Air Quality

4.3.1 Details of Mathematical Modelling

A large number of different mathematical models for dispersion calculations are in practice in many parts of the world. Most of the models for prediction of downwind concentrations are based on Gaussian dispersion. The principle behind the Gaussian dispersion models is Gaussian probability distribution of concentration in both vertical and horizontal cross wind directions about the plume central line.

Predictions of ground level concentrations of the pollutants were carried out based on site meteorological data collected during the study period. For calculation of predicted ground level concentrations, AERMOD, a model of Lakes Environmental based on USEPA, ISCST3 algorithms, was used; as it's based on more sophisticated algorithm incorporating deposition, better algorithm for area sources, etc.

AERMOD is air dispersion model based on planetary boundary layer theory. It accounts depositional parameters, local terrain effects and meteorological turbulence calculations. It uses boundary-layer similarity theory to define turbulence and dispersion coefficients as a continuum, rather than as a discrete set of stability classes. It is a steady state dispersion model designed for short-range (up to 50 kilometres) dispersion of air pollutant emissions. It has meteorological data pre processor that accepts surface meteorological data, upper air data and calculates atmospheric parameters needed for dispersion model. Further, it has terrain pre processor to provide a physical relationship between terrain features and behaviour of air pollution plumes. AERMOD requires surface as well as upper air data as meteorological input. This air quality model is used in this study for predicting the ground level concentrations from industrial operations and projected traffic in the respective corridors connected to industrial development area.

4.3.1.1 Model Formulation

The model uses the following steady state Gaussian plume equation. The basic equation for calculating the concentration of pollutants for any point in x, y, z co-ordinates is given below:

$$C(x,y,z,H) = Q/2\pi\sigma_y\sigma_z U \exp[-1/2(y/\sigma_y)^2] \times [\exp\{-1/2(z-h/\sigma_z)^2\} + \exp\{-1/2(z+H/\sigma_z)^2\}]$$

Where,

C= Concentration of pollutants in mg/cu m

Q= Strength of emissions in g/sec.

H= Effective Height (m), i.e., physical height + plume raise

y, z= diffusion coefficients in y and z directions in m.

U= average wind velocity in m/sec.

The following assumptions are made in Gaussian dispersion model.

The dispersion parameter values used for horizontal dispersion coefficient and vertical dispersion coefficients are those given in the "Work book of atmospheric dispersion estimates". These dispersion coefficients assume a sampling time of about 10 min., the height values of interest to be in the lowest several hundred meters of the atmosphere, a surface corresponding to the open country. The stacks are tall enough to be free from building turbulence so that no aerodynamic down wash occurs. The given stability exists from ground level to well above the top of the plume.

The Gaussian dispersion model has been tested extensively for its validity and found to be reasonably applicable for different atmospheric conditions. BIS has also adopted this basic plume dispersion model. Hence the same model is adopted for predictions of downwind concentrations of pollutants in this report.

4.3.2 Plant Emissions

The sources of air pollution from the plant of M/s. NCL Industries Limited-Cement Plant are outlined in the table. The major pollutants generated from the Kiln, Raw mill, Coal mill, Cement mill and Lime Stone crusher are SO2, NO_2 and Particulate Matter. Based on the steel melting process, details the emission rates of various pollutants are calculated. The emission rates of SO2, NOx and Particulate Matter from each stack are presented in **Table 4.6.**

Table 4.9: Emission Details of Pollutants from Stack

Stack Detail	Stack Height (m)	Stack Dia. (m)	Gas Exit Temp. (^{0}K)	Flue Gas Velocity (m/s)	Emission Rates		
					PM_{10} (g/s)	SO_2 (g/s)	NO_2 (g/s)
Kiln - III - Pre heater & Raw mill (Combined Stack)	130	7.0	397	15	6.95	23.9	6.95
Kiln III - Cooler Stack	55	4.3	393	18	4.55	4.1	24.6
New Coal Mill Stack	50	2.2	333	18	1.23	-	-
New Cement Mill Stack	55	1.6	343	15	0.63	-	-
New Packing Plant Stack	30	0.97	323	18	0.19	-	-
New Lime Stone crusher Stack	30	1.25	323	15	0.10	-	-

4.3.2.1 Air Quality Predictions

Predictions of ground level concentrations of the pollutants were carried out based on site meteorological data collected during the period from March 2021 to May 2021 for calculation of ground level concentrations a grid of 10 km X 10 km with a receptor interval of 1000 meters is considered.

The composition of particulate matter was obtained from USEPA AIRCHIEF AP-42 and the same was considered in determining the source concentration of PM_{10} for prediction purpose. The predicted maximum 24 hourly ground level concentrations of PM_{10}, SO_2 and NO_x and distance of occurrence during different seasons of study period are presented in **Table 4.10.**

It may be observed that the annual predicted maximum 24 hourly GLC's of PM_{10}, SO_2 and NOx are 5.40 $\mu g/m^3$, 4.01 $\mu g/m^3$ and 12.6 $\mu g/m^3$ respectively and the maximum values are observed at Project Site. The GLC's are also predicted at air quality monitoring locations and the predicted GLC's are presented in **Tables 4.11** and the cumulative concentrations at various villages are tabulated in **Table 4.12.**

Table 4.10: Maximum Predicted 24 hourly GLC's

S.No	Parameter	Predicted GLC ($\mu g/m^3$)	Location
1	PM_{10}	5.40	Project Site
3	SO_2	4.01	Project Site
4	NO_2	12.6	Project Site

Table 4.11: Predicted GLC's at Monitoring Locations

S. No	Monitoring Location	Direction	Distance (Km)	Predicted GLC ($\mu g/m^3$)		
				PM_{10}	SO_2	NO_2
1	Project Site	--	--	5.40	4.01	12.6
2	Katrapadu	W	6.23	0.31	0.5	0.95
3	Ramachandrapuram	NNW	1.61	1.78	1.11	3.23
4	Gundeboyinagudem	WNW	5.60	0.38	0.45	1.02
5	Mattapalli	S	1.36	0.23	0.27	0.46
6	Gundlapalli	E	5.30	0.84	1.17	1.83
7	Sarangapalli	SW	6.14	0.61	0.67	1.54
8	Chintalammagudem	NNE	4.59	0.38	0.42	0.88

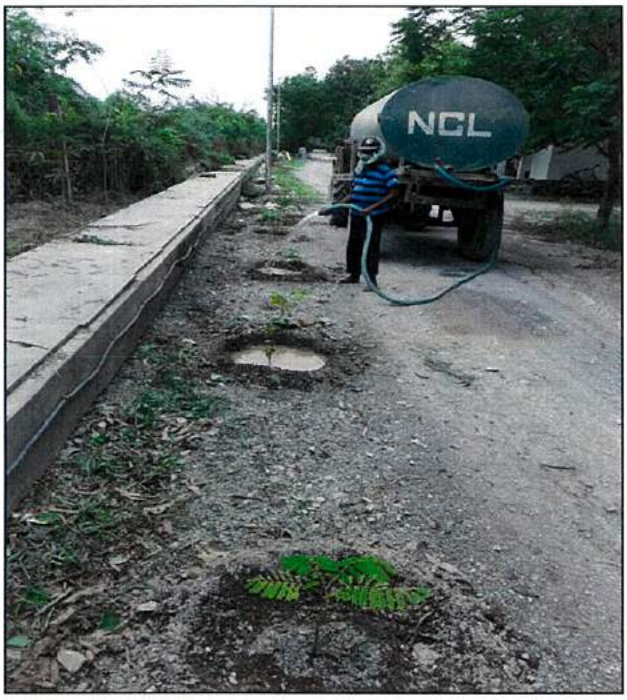
Table 4.12: Cumulative Concentrations at Various Villages

AAQ Location	Base Line Concentration ($\mu g/m^3$)			Predicted GLCs ($\mu g/m^3$)			Cumulative Concentration ($\mu g/m^3$)		
	PM10	SO2	NOx	PM10	SO2	NOx	PM10	SO2	NOx
Project Site	84.3	12.5	22.3	5.40	4.01	12.6	89.7	16.51	34.9
Katrapadu	72.5	11.4	20.2	0.31	0.5	0.95	72.81	11.9	21.15
Ramachandrapuram	74.5	10.2	19.7	1.78	1.11	3.23	76.28	11.31	22.93
Gundeboyinagudem	73.0	9.5	20.3	0.38	0.45	1.02	73.38	9.95	21.32
Mattapalli	74.6	12.7	23.7	0.23	0.27	0.46	74.83	12.97	24.16
Gundlapalli	71.3	11.8	20.4	0.84	1.17	1.83	72.14	12.97	22.23
Sarangapalli	68.2	12.8	19.0	0.61	0.67	1.54	68.81	13.47	20.54
Chintalammagudem	70.4	9.7	22.9	0.38	0.42	0.88	70.78	10.12	23.78

The predicted ground level concentrations are graphically displayed for PM_{10}, SO_2, and NO_x respectively in **Figure 4.1 – 4.6**.

Annexure -VIII

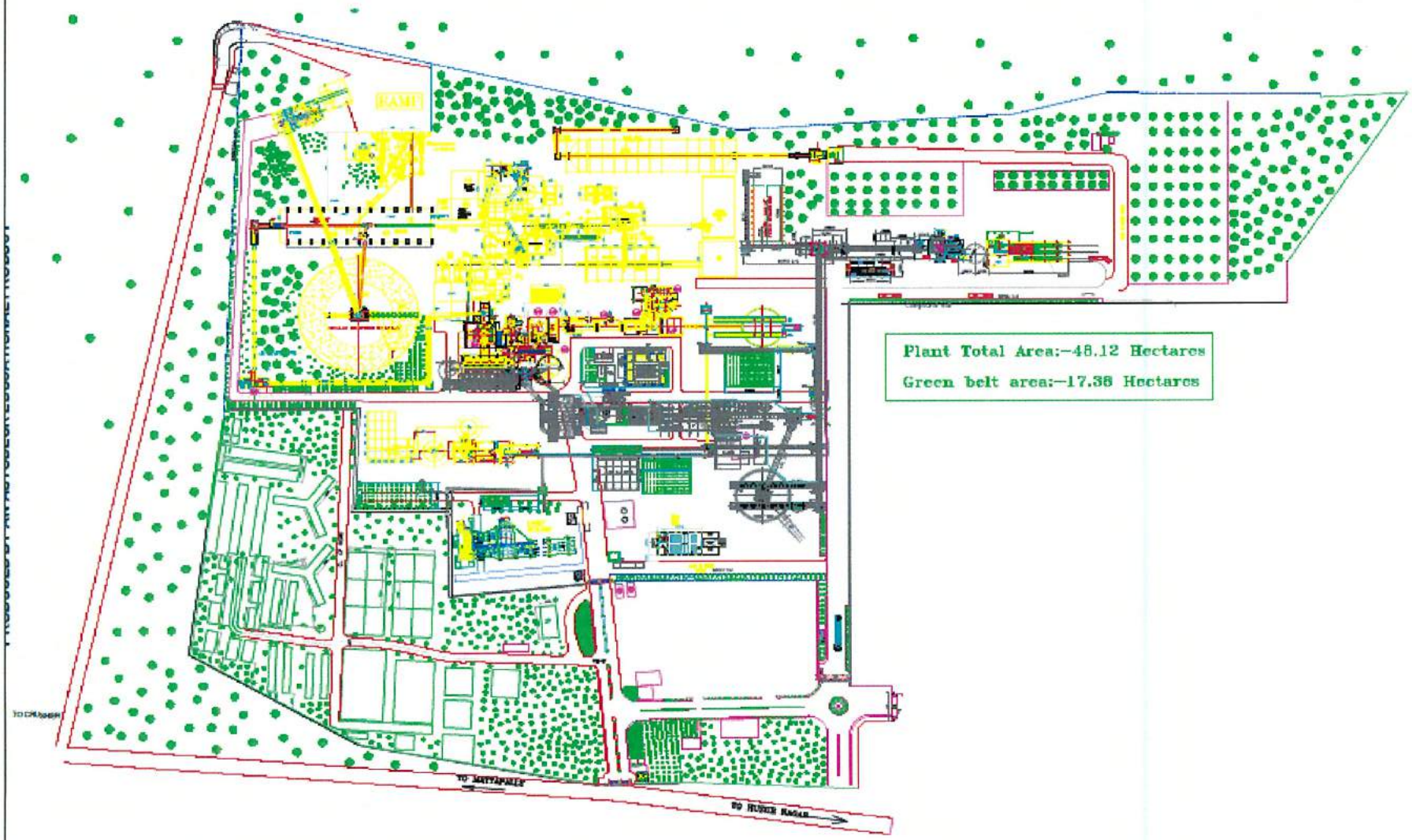
GREENBELT DETAILS



M/s. NCL INDUSTRIES LIMITED

CEMENT DIVISON

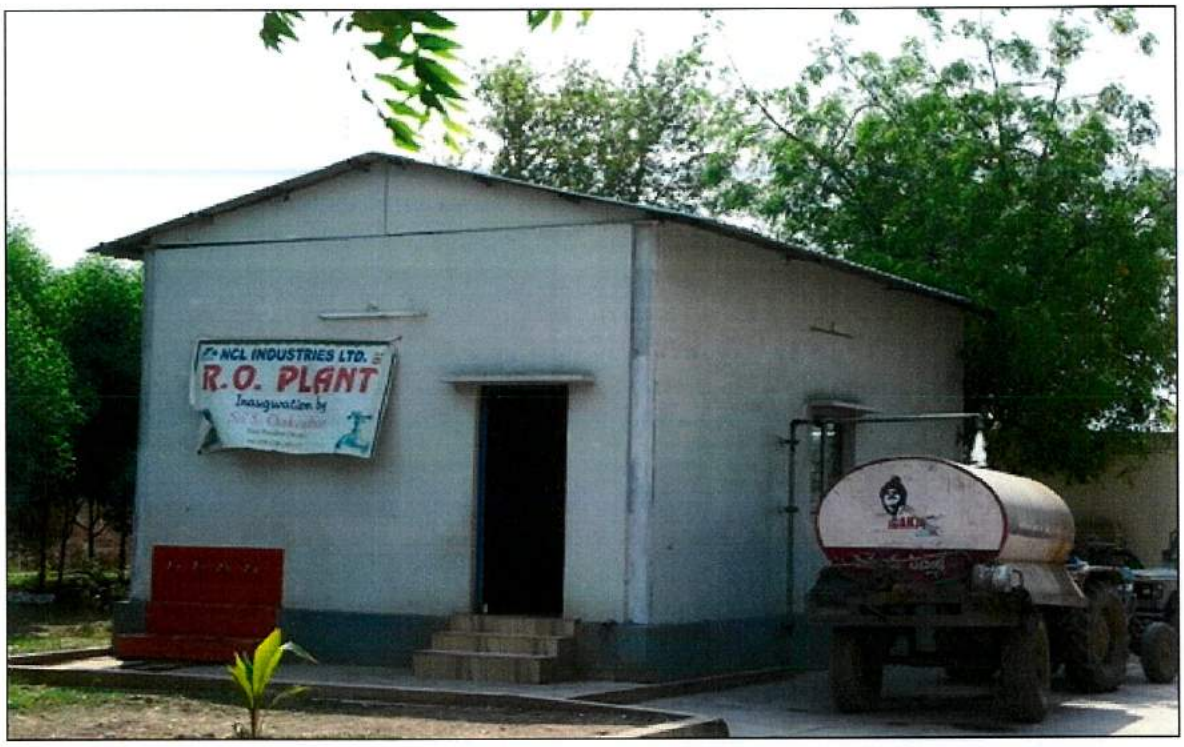
GREEN BELT LAYOUT - ANNEXURE - VII




PLANTATION PROGRAMME
22-07-2021
చెట్లను నాటుదాం -
పర్యావరణాన్ని కాపాడుదాం.

ANNEXURE - IX

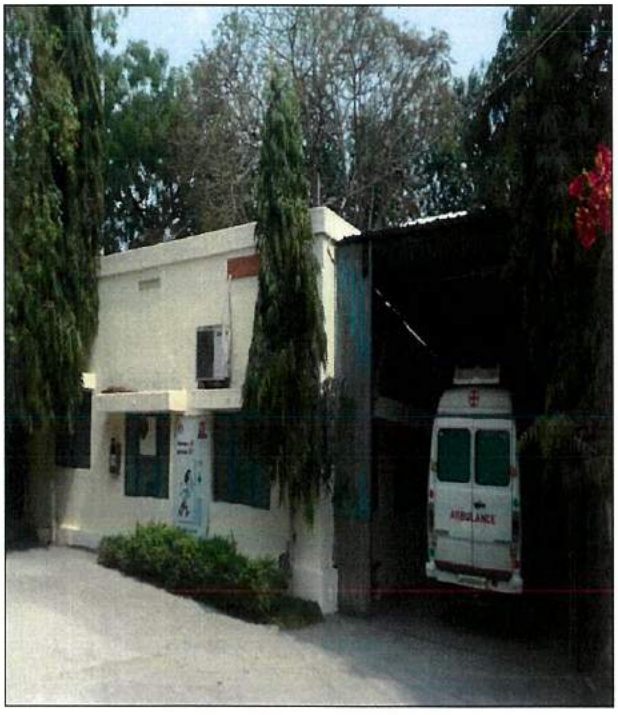
MINERAL WATER PLANT IN COLONY



NCL HIGH SCHOOL & JR COLLEGE AT MATTAPALLY

ANNEXURE –X

PRIMARY HEALTH CENTER




DATE : 06-10-2021
CAMP : HYPERTENSION SCREENING CAMP
VENUE : (OLD AGE HOME) MATTAPALLY
INDIAN RED CROSS SOCIETY
Suryapet Disrtict
MATAMPALLY MANDAL BRANCH


DATE : 12-10-2021
CAMP : DIABETIC SCREENING CAMP
VENUE : RAMACHANDRAPURAM THANDA
Suryapet Disrtict


DATE : 18-08-2021
CAMP: EYE CAMP
VILLAGE: GUNDLAPALLI
INDIAN RED CROSS SOCIETY
Suryapet Disrtict
MATAMPALLY MANDAL BRANCH


DATE : 20-04-2021
CAMP : COVID-19 VACCINATION PROGRAM
VENUE : R.M.H.C

NCL INDUSTRIES LIMITED, RAMACHANDRA RAJU MEMORIAL HEALTH CENTRE, SIMHAPURI

LIST OF MEDICAL CAMPS CONDUCTED IN SIMHAPURI COLONY DURING APRIL TO SEP 2021

Sl.No	Date	Name of the Camp	Venue	No. of Beneficiaries	With the Co-operation of
1	17-04-2021	Distribution of Covid-19 control prevention guidance	R.M.H.C	400	Staff of R.M.H.C
2	20-04-2021	Covid-19 vaccination program	R.M.H.C	30	Primary Health Centre, Mattampalli + Staff of R.M.H.C
3	26-04-2021	Medical examination of skill development trainees	R.M.H.C	14	Staff of R.M.H.C
4	30-04-2021	Preparation of Fitness Certificates for contract work men of Cement Division	R.M.H.C	180	Staff of R.M.H.C
5	30-04-2021	Distribution of deworming (Albendazole) tablets for contract work men of Cement Division	R.M.H.C	180	Staff of R.M.H.C
6	30-04-2021	Preparation of Fitness Certificates for contract work men of Boards Division	R.M.H.C	23	Staff of R.M.H.C
7	30-04-2021	Distribution of deworming (Albendazole) tablets for contract work men of Boards Division	R.M.H.C	23	Staff of R.M.H.C
8	30-04-2021	Preparation of Fitness Certificates for contract work men of Mines Division	R.M.H.C	24	Staff of R.M.H.C
9	30-04-2021	Distribution of deworming (Albendazole) tablets for contract work men of Mines Division	R.M.H.C	24	Staff of R.M.H.C
10	31-05-2021	Preparation of Fitness Certificates for contract work men of Cement Division	R.M.H.C	131	Staff of R.M.H.C
11	31-05-2021	Distribution of deworming (Albendazole) tablets for contract work men of Cement Division	R.M.H.C	131	Staff of R.M.H.C
12	31-05-2021	Preparation of Fitness Certificates for contract work men of Boards Division	R.M.H.C	24	Staff of R.M.H.C
13	31-05-2021	Distribution of deworming (Albendazole) tablets for contract work men of Boards Division	R.M.H.C	24	Staff of R.M.H.C
14	31-05-2021	Preparation of Fitness Certificates for contract work men of Mines Division	R.M.H.C	17	Staff of R.M.H.C
15	31-05-2021	Distribution of deworming (Albendazole) tablets for contract work men of Mines Division	R.M.H.C	17	Staff of R.M.H.C
16	09-06-2021	Distribution of Covid-19 control prevention guidance	R.M.H.C	408 '	Staff of R.M.H.C
17	13-06-2021	Corona screening camp	R.M.H.C	23	Primary Health Centre, Mattampalli + Staff of R.M.H.C
18	21-06-2021	Diabetic screening camp - Old Colony	R.M.H.C	96	Staff of R.M.H.C
19	21-06-2021	Diabetic screening camp - Old Colony (2nd phase)	R.M.H.C	5	Staff of R.M.H.C
20	21-06-2021	Diabetic screening camp -Old Colony (3rd phase)	R.M.H.C	4	Staff of R.M.H.C
21	30-06-2021	Preparation of Fitness Certificates for contract work men of Cement Division	R.M.H.C	153	Staff of R.M.H.C
22	30-06-2021	Distribution of deworming (Albendazole) tablets for contract work men of Cement Division	R.M.H.C	153	Staff of R.M.H.C

23	30-06-2021	Preparation of Fitness Certificates for contract work men of Boards Division	R.M.H.C	30	Staff of R.M.H.C
24	30-06-2021	Distribution of deworming (Albendazole) tablets for contract work men of Boards Division	R.M.H.C	30	Staff of R.M.H.C
25	30-06-2021	Preparation of Fitness Certificates for contract work men of Mines Division	R.M.H.C	10	Staff of R.M.H.C
26	30-06-2021	Distribution of deworming (Albendazole) tablets for contract work men of Mines Division	R.M.H.C	10	Staff of R.M.H.C
27	30-06-2021	Preparation of Fitness Certificates for contract work men of Buildtek Ltd	R.M.H.C	24	Staff of R.M.H.C
28	30-06-2021	Distribution of deworming (Albendazole) tablets for contract work men of Buildtek Ltd	R.M.H.C	24	Staff of R.M.H.C
29	04-07-2021	Diabetic screening camp -New Colony	R.M.H.C	184	Staff of R.M.H.C
30	06-07-2021	Diabetic screening camp -New Colony (2nd phase)	R.M.H.C	16	Staff of R.M.H.C
31	07-07-2021	Diabetic screening camp -New Colony (3rd phase)	R.M.H.C	6	Staff of R.M.H.C
32	16-07-2021	Blood donation camp	R.M.H.C	73	Indian Red Cross Society, Vidyanager-Hyderabad
33	17-07-2021	Distribution of deworming (Albendazole) & D.E.C.tablets	R.M.H.C	918	Primary Health Centre, Mattampalli + Staff of R.M.H.C
34	29-07-2021	Covid-19 vaccination program	R.M.H.C	105	Primary Health Centre, Mattampalli + Staff of R.M.H.C
35	31-07-2021	Preparation of Fitness Certificates for contract work men of Cement Division	R.M.H.C	245	Staff of R.M.H.C
36	31-07-2021	Distribution of deworming (Albendazole) tablets for contract work men of Cement Division	R.M.H.C	245	Staff of R.M.H.C
37	31-07-2021	Preparation of Fitness Certificates for contract work men of Boards Division	R.M.H.C	20	Staff of R.M.H.C
38	31-07-2021	Distribution of deworming (Albendazole) tablets for contract work men of Boards Division	R.M.H.C	20	Staff of R.M.H.C
39	31-07-2021	Preparation of Fitness Certificates for contract work men of Mines Division	R.M.H.C	9	Staff of R.M.H.C
40	31-07-2021	Distribution of deworming (Albendazole) tablets for contract work men of Mines Division	R.M.H.C	9	Staff of R.M.H.C
41	31-07-2021	Preparation of Fitness Certificates for contract work men of Buildtek Ltd	R.M.H.C	18	Staff of R.M.H.C
42	31-07-2021	Distribution of deworming (Albendazole) tablets for contract work men of Buildtek Ltd	R.M.H.C	18	Staff of R.M.H.C
43	26-08-2021	Covid-19 vaccination program	R.M.H.C	47	Primary Health Centre, Mattampalli + Staff of R.M.H.C
44	31-08-2021	Preparation of Fitness Certificates for contract work men of Cement Division	R.M.H.C	325	Staff of R.M.H.C
45	31-08-2021	Distribution of deworming (Albendazole) tablets for contract work men of Cement Division	R.M.H.C	325	Staff of R.M.H.C
46	31-08-2021	Preparation of Fitness Certificates for contract work men of Boards Division	R.M.H.C	13	Staff of R.M.H.C

47	31-08-2021	Distribution of deworming (Albendazole) tablets for contract work men of Boards Division	R.M.H.C	13	Staff of R.M.H.C
48	31-08-2021	Preparation of Fitness Certificates for contract work men of Mines Division	R.M.H.C	24	Staff of R.M.H.C
49	31-08-2021	Distribution of deworming (Albendazole) tablets for contract work men of Mines Division	R.M.H.C	24	Staff of R.M.H.C
50	31-08-2021	Preparation of Fitness Certificates for contract work men of Buildtek Ltd	R.M.H.C	10	Staff of R.M.H.C
51	31-08-2021	Distribution of deworming (Albendazole) tablets for contract work men of Buildtek Ltd	R.M.H.C	10	Staff of R.M.H.C
52	25-09-2021	Covid-19 vaccination program	R.M.H.C	84	Primary Health Centre, Mattampalli + Staff of R.M.H.C
53	30-09-2021	Preparation of Fitness Certificates for contract work men of Cement Division	R.M.H.C	146	Staff of R.M.H.C
54	30-09-2021	Distribution of deworming (Albendazole) tablets for contract work men of Cement Division	R.M.H.C	146	Staff of R.M.H.C
55	30-09-2021	Preparation of Fitness Certificates for contract work men of Boards Division	R.M.H.C	17	Staff of R.M.H.C
56	30-09-2021	Distribution of deworming (Albendazole) tablets for contract work men of Boards Division	R.M.H.C	17	Staff of R.M.H.C
57	30-09-2021	Preparation of Fitness Certificates for contract work men of Mines Division	R.M.H.C	50	Staff of R.M.H.C
58	30-09-2021	Distribution of deworming (Albendazole) tablets for contract work men of Mines Division	R.M.H.C	50	Staff of R.M.H.C
59	30-09-2021	Preparation of Fitness Certificates for contract work men of Buildtek Ltd	R.M.H.C	34	Staff of R.M.H.C
60	30-09-2021	Distribution of deworming (Albendazole) tablets for contract work men of Buildtek Ltd	R.M.H.C	34	Staff of R.M.H.C

NCL INDUSTRIES LIMITED, RAMACHANDRA RAJU MEMORIAL HEALTH CENTRE, SIMHAPURI

THE LIST OF MEDICAL CAMPS CONDUCTED IN SURROUNDING VILLAGES, DURING THE APRIL TO SEP 2021

Sl.No.	Date	Name of the Camp	Venue	No. of Beneficiaries	With the co-operation of
1	25-04-2021	Wallpapers to bring awareness on HIV/AIDS	Surrounding villages	17	Staff of R.M.H.C
2	25-04-2021	Distributed soaps and masks provided by Indian Red Cross society	Sulthanpur thanda	40	Staff of R.M.H.C
3	26-04-2021	Distributed soaps and masks provided by Indian Red Cross society	Mattapally	60	Staff of R.M.H.C
4	09-07-2021	Distribution of Covid-19 control prevention guidance provided by Indian Red Cross society	Sulthanpur thanda	50	Staff of R.M.H.C
5	02-08-2021	Eye Camp	(Old Age Home) Mattapally	11	Staff of R.M.H.C
6	08-08-2021	Eye Camp	Gundlapalli	33	Staff of R.M.H.C
7	12-08-2021	Eye Camp	Sulthanpur thanda	17	Staff of R.M.H.C
8	18-08-2021	Eye Camp	Gundlapalli	20	Staff of R.M.H.C
9	25-08-2021	Eye Camp	Ramachandrapuram thanda	31	Staff of R.M.H.C
10	29-08-2021	Eye Camp	Mattapally	26	Staff of R.M.H.C
11	30-08-2021	Wallpapers to bring awareness on HIV/AIDS	Surrounding villages	20	Staff of R.M.H.C
12	04-09-2021	Diabetic screening camp	Gundlapalli	51	Staff of R.M.H.C
13	04-09-2021	Hypertension screening camp	Gundlapalli	51	Staff of R.M.H.C
14	05-09-2021	Diabetic screening camp	Sulthanpur thanda	42	Staff of R.M.H.C
15	05-09-2021	Hypertension screening camp	Sulthanpur thanda	42	Staff of R.M.H.C
16	09-09-2021	Diabetic screening camp	Gundlapalli	22	Staff of R.M.H.C
17	09-09-2021	Hypertension screening camp	Gundlapalli	22	Staff of R.M.H.C
18	12-09-2021	Diabetic screening camp	Mattapally	34	Staff of R.M.H.C
19	12-09-2021	Hypertension screening camp	Mattapally	34	Staff of R.M.H.C
20	19-09-2021	Eye Camp	Bhimla thanda	52	Staff of R.M.H.C
21	19-09-2021	Diabetic screening camp	Bhimla thanda	69	Staff of R.M.H.C
22	19-09-2021	Hypertension screening camp	Bhimla thanda	69	Staff of R.M.H.C
23	23-09-2021	Eye Camp	Bhojya thanda	22	Staff of R.M.H.C
24	23-09-2021	Diabetic screening camp	Bhojya thanda	24	Staff of R.M.H.C
25	23-09-2021	Hypertension screening camp	Bhojya thanda	24	Staff of R.M.H.C
26	26-09-2021	Eye Camp	Krishna thanda	55	Staff of R.M.H.C
27	26-09-2021	Diabetic screening camp	Krishna thanda	55	Staff of R.M.H.C
28	26-09-2021	Hypertension screening camp	Krishna thanda	55	Staff of R.M.H.C
29	30-09-2021	Diabetic screening camp	Gurrambodu thanda	45	Staff of R.M.H.C
30	30-09-2021	Hypertension screening camp	Gurrambodu thanda	47	Staff of R.M.H.C
				1140	

CHAPTER -7

ADDITIONAL STUDIES

7.1 Public Consultations

This draft report is submitted for public consultations and once process is completed, proceedings with answers from proponents will be submitted in final report.

7.2 Risk Assessment & Disaster Management

NCL Industries Limited is in operation at the current location since 1984. Started as mini Cement plant with a capacity of 200 TPD,NCL Limited had grown over the years with continuous expansions and current expansion is to increase the clinker production from 2.4 Million Metric tons/annum to 4.0 Million Metric Tons /Annum and cement production from 2 million Metric Tons /annum to 4.0 Million Metric Tons/annum

Following unit processes are adopted in the plant

- Material transport and handling - Lime Stone, Coal, Fly Ash, Gysum, Iron ore, Laterites
- Use of Flammable waste as fuel supplement in the Kiln section
- Line stone crusher and stacker
- Vertical Raw mill
- Coal Mills
- Pre Calcinator
- Kiln Section – Pre- heater & Cooler
- Clinker storage silos
- Cement mill
- Packing Plant

The unit just started using flammable waste from Pharmaceutical plants and Chemical Plants to supplement and reduce the fuel consumption. In July 2021 they used about 200 Tons of such waste which is very insignificant

7.2.1 Typical Hazards in Cement Plant

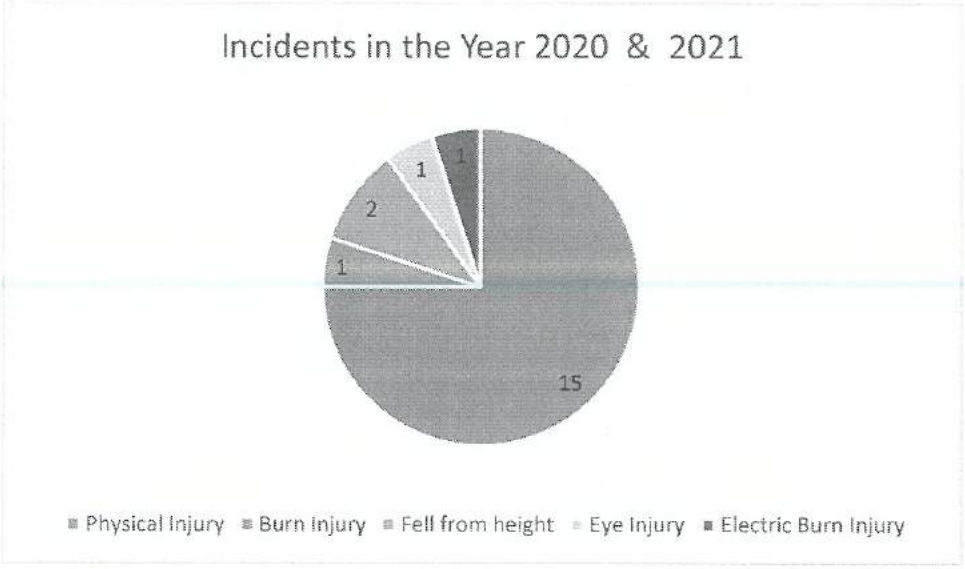
The Typical Hazards associated with cement plant operations can be classified into the following

- Slips, Trips and Falls
- Falling Objects
- Hazards relating to moving of parts of machines, Motors and Conveyors
- Electrical hazards
- Fire Hazards in Coal storage area and Industrial waste storage area
- Burn Injuries due to contact with hot material in Kiln
- Hazards relating to transport vehicles
- Hazards relating to loading and un loading of raw materials
- Exposure to dust
- Exposure to Heat
- Exposure to High Noise in Vertical Raw mill, Coal Mill, Lime stone Crushers, Kiln areas

7.2.2 Current Scenario in the plant

There is elaborate recording system of incidents in the plant. There is dedicated Safety team in place in the plant. There are no reportable accidents under Factory Rules during the last 5 years. In 2020 There are 12 incidents occurred and in 2021 there are 8 incidents reported and type of injuries/Incidents are classified in to burn injuries , Physical injuries, fall from lader/cranes and electrical related burn injury and chips fell into eye . Pie diagram of the incidents occurred in 2020 & 2021 in the company is presented in Pie Diagram below

Fig Pie Diagram of incidents in NCL



7.2.2.1 Safety Committee & Safety Audits

Safety committee is constituted every year and DGM(Mechanical) is chairman of the committee and there 23 members in the committee and out of which 6 representatives from worker union, one representative from labor contractor and Security officer. Safety audit is conducted every month and results reported to safety committee. In 2020, 116 safety suggestions/Concerns reported and out of this 113 concerns/Suggestions are acted upon. In 2021, 64 Suggestions/Concerns reported and 38 are attended so far

7.2.3 Risk Assessment

A Risk Assessment is carried out in Vulnerable risk areas in the plant. Current control systems and improvements suggested are presented in the table below

Table: Hazard & Risk Analysis& Mitigation measures

Equip.	Process	Potential Hazard	Severity Area & Population	Current Mitigation	Additional Suggestive measures
Stacker & Reclaimer (Lime Stone crushers, Line stone yard, Additives& Coal	Stacking & Reclaiming of Raw Material	Stackers & Reclaimer can overrun,	Stackers & Reclaimer Area about 6-7 Workers	➢ Proximity switches are provided along with mechanical stoppers for stopping of over travel	None
		Fire	Coal yard area about 8-10 workers	➢ The fire hydrant system with closed loop system	Fire Hydrant system shall be extended to additional Coal Storage area proposed
		Air Pollution		➢ Dust collectors are provided in coal mill ➢ Continuous wetting of coal is provided ➢ 3 shifts guarding of coal area	➢ Bag filter for new Coal Mill ➢ Automatic water sprinkling in coal storage area ➢ Air Guns shall be established in Stacker area
		Noise	8-10 people near line stone Crushers and Coal mill	➢ Ear Muff are provide to all employees ➢ Periodic audimetric tests are done for employees in high noise areas	➢ Same controls will be extended in the expansion activity
Coal Mill	Grinding of Raw	Personnel can come in	Coal mill area 4-5 people	➢ Restricted Entry ➢ Safety guards are provided	Same safe guards will be extended to new Coal mill

	coal	contact with rotating parts		➢ Hand Railing for ladders provided ➢ Railing to plat form is provided	proposed
		Noise Pollution		➢ Ear Muffs are provided to people goes for inspection and maintenance	➢ None
		Air Pollution		➢ Properly designed dust collectors & bag house is provied	➢ Same safe guards proposed in New VRM that is Proposed
Storage Silo (Raw Meal, Clinker , Cement& Fly Ash)	Storage of Raw Meal Cement, Fly Ash	Air Pollution	Silo Area about 10 Workers	➢ Storage Silo are completely sealed structure ➢ Enclosure is provided for Clinker Silo ➢ Extraction & transportation through closed system like air slide. ➢ Bag filters are provided at silo top.	➢ For Clinker Silo – I additional sheeting is required as emissions are observed. ➢ The Current control systems are proposed for proposed silos in expansion activity
		Breakage of silo wall		➢ It will be properly designed, taking care of the load factor	➢ The Current control systems are proposed for proposed silos in

				➢ Pre-Stress tendons are provided for better load taking ➢ Pressure relief valves provided on Silo top ➢ Continuous monitor of Silo structure	expansion activity
VRM (Vertical Roller Mill)	Crushing Raw lime stone	Dust Emission	VRM Area 4-5 workers	➢ Adequately designed Bag Filter are provided ➢ The complete system is in closed circuit ➢ The total process transportation will be through covered & Pneumatic system	➢ Current controls will be extended to new Vertical Raw Mill Proposed
		Fire		➢ Adequate Fire Extinguishers at every floor & Fire Hydrant system is installed	➢ Current systems will be extended to new VRM
		Noise		➢ Restricted entry ➢ Ear Muffs to people go for inspections and maintenance	➢ Current systems shall be extended to newVRM
	Grinding of Lime	Personnel can come in	Coal mill area 4-5 people	➢ Restricted Entry ➢ Safety guards are provided	➢ Same safe guards shall be extended to new VRM

	stone and other materials	contact with rotating parts		➢ Hand Railing for ladders provided ➢ Railing to plat form is provided	proposed
Kiln Section	Pre-heater, Calciner, Kiln and Cooler Section	Hot Air & Hot Surfaces	Pre Heater Area 4-5 people	➢ Heat insulation is done ➢ Water hydrant pipeline tappings are provided ➢ Controlled air lines tapping are given at every floor ➢ Fire extinguisher are placed on every floor of pre-Heater building.	➢ Same safe guards shall be provide for new Pre-heater section proposed for expansion
		Falling from height		➢ Every floor of pre heater building is properly barricaded by hand/Knee railings ➢ Toe guards are be provided ➢ Passenger lift are installed	➢ Same safe guards shall be provide for new Pre-heater section proposed for expansion
	Hazardous waste handling fed to Kiln	Fire Hazards	2-3 People	➢ Hazards wastes used for co-processing is stored in steel Vessel ➢ Fire proof pumps are installed	➢ The are shall be provided with Leak collection system

				➢ Fire Hydrant line is extended to the area	
Storage Yard	Storage of Raw material	Air Pollution	Raw Material storage yard 10-15 people	➢ Storage yard is covered with shed ➢ Moisture is provided through continuous water spray	➢ Current systems are adequate
Packing Plant	Packing of Cement in bags through rotary packers	Dust Emissions	Packing Plant 40-50 Workers	➢ Dust suction ports are provided near the rotary packer ➢ Suction ports are provided above the belt conveyors ➢ Appropriate PPEs will be provided to all workers like masks, goggles & Ear muffs	➢ Current systems will be extended to new Cement mill
Transport hazards	Transport, Loading and Unloading of material	Physical injuries and accidents	100 -150 People	➢ All transport and loading and un loading activities are out sourced ➢ Drivers are tested for Eye Sight every 6months	➢ Maintenance activities of vehicles need to be checked ➢ Head lights, Reverse horns, Break systems shall be verified by plant management once in every 3 months

		Dust		➢ Dust suppression measures on roads ➢ PUC emission Checks for all transport vehicles	➢ All material Transport vehicles shall be provided with Tarpaulin ➢
Electrical Hazards	Through Out the plant	Shock and Fires	Through Out plant	➢ All cables are periodically checked ➢ Earth pits are properly maintained and resistance is measured and recorded ➢ Static energy is monitored in vulnerable areas like cement handling and packing plants ➢ Periodic electrical audits are conducted ➢ CO2 and DCP fire extinguishers are placed at all electrical installations, panel boards etc.	➢ Current systems shall be extended to proposed installations

ANNEXURE –XII

PPE USAGE DISPLAY SIGNS BOARDS IN PLANT & TRAINING PROGRAMS

ANNEXURE -XIII

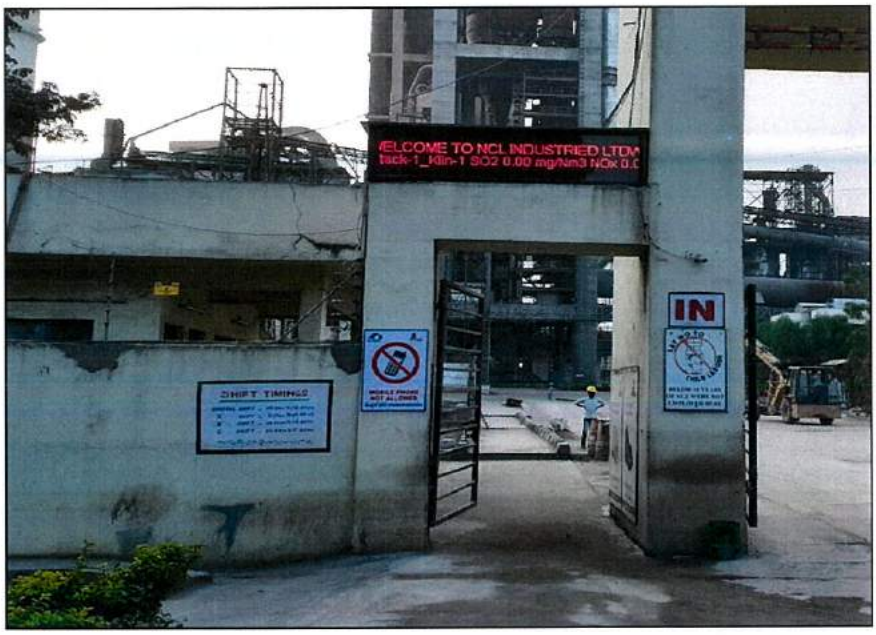
SOLAR PANEL LIGHTING SYSTEM

SOLAR POWERED TRAFFIC BLINKERS

SOLAR FENCING AT ALONG THE FACTORY BOUNDARY

Annexure – XIV

THE MONITORED DATA HAS DISPLAYED AT THE MAIN GATE



Submission letter of EC – Compliance Reports for the Period of Oct to March 2021

NCL INDUSTRIES LIMITED
CEMENT DIVISION

NCL GROUP

AN ISO 9001 : 2015 COMPANY
CIN : L33130TG1979PLC002521

NCL/QC/ 2021-22/905 Date: 31.05.2021

The Director (S),
Regional Office (south Eastern Zone),
Government of India,
Ministry of Environment & Forest and Climate Change,
1st 2nd Floor, HEPC Building, No.34, Cathedral Garden Road,
Nungambakkam, Chennai – 600034.

Dear Sir,

Sub: Submission of Six month Compliance Report of the Environment Clearance accorded to M/s. NCL Industries Ltd, Simhapuri, Nalgonda (Dt), Telangana.

Ref: 1. Expansion of Cement Plant Environment Clearance.
F. No: J- 11011/576/2008-IA II(I), Dated: 28.10.2016.
2. Cement Plant & Lime stone Environment Clearance:
F.No: J-11011/576/2008-IA II (I), Dated 15.12.2009.

We submit herewith the conditions wise Compliance Status Report for the above referred Environment Clearances accorded by the MoEFCC along with test reports of Ambient Air Quality, Fugitive Emission, Stack Monitoring and Noise levels, Water & Waste Water Analysis Reports and Ground Water Level Monitored by accredited third party laboratory M/s. Lawn Enviro Associates for the period **October to March 2021** for the kind information.

Thanking you,

Yours Faithfully,

For NCL INDUSTRIES LTD

PRESIDENT (WORKS)

Encl: 1. Compliance Status Report of F. No: J- 11011/576/2008-IA 11(I), Dated: 28.10.2016. along with Monthly Monitoring Reports.
2. Compliance Status Report of F. No: J- 11011/576/2008-IA 11(I), Dated: 15.12.2009. along with Monthly Monitoring Reports.

CC to : 1. Regional Directorate – Bengalore, CPCB Zonal Office, A-Block, Nisarga Bhavan, 1st and 2nd Floors, 7th D Cross, Thimmaiah Road, Shivanagar, BENGALURU – 560079.
2. The Environment Engineer, TSPCB Board, Regional Office, H.No.6-2-888/B, 2nd Foolr, Laxmi Complex, Near Clock Tower, NALGONDA – 508001.

Factory : Simhapuri, Mattapalli Village, Mattampalli Mandal, Suryapet Dist.,-508 204, T.S.
Tel : 08683-227630, Fax: 08683-227629 E-mail : nclworks@nclind.com
Regd. & Corporate Office: 7th Floor, NCL Pearl, Near Rail Nilayam, S.D. Road, Secunderabad-500 026. Telangana, India,
T : 91-40-30120000, 2980 7868/69, Fax: 91-40-2980 7871, E-mail: ncl@nclind.com | Website : www.nclind.com

ANNEXURE - XVI

SUBMISSION LETTER OF ENVIRONMENT STATEMENT AUDIT REPORT - FORM V FOR 2020-21

NCL INDUSTRIES LIMITED
CEMENT DIVISION

NCL GROUP

AN ISO 9001 : 2015 COMPANY
CIN : L33130TG1979PLC002521

// REGISTERED POST A/D//

NCL/QC/ENVT/2021-22/1203 Date:17.09.2021

To

The Member Secretary,
TSPC Board,
Paryavaran Bhavan,
A-3, Industrial Estate,
Sanathnagar,
HYDERABAD – 500 018.

Sub: Submission of Environmental Statement Audit Report Form – V for the Year 2020 -21.

Ref: Amendment of CFO&HWA Order No: - TSPCB/RCP/NLG/HO/CFO/2018 - 2563;
Dated: 19/11/2018.

Dear Sir,

With reference to the above cited subject, we are here with submitting three copies of Environmental Statement Audit Form –V for the financial year ending March 2021.

Kindly acknowledge the receipt of the same.

This is for your kind information.

Thanking you.

Yours faithfully,

For NCL INDUSTRIES LIMITED

S. Chakradhar
President – Works.

Encl: As above.

Copy to: The Environmental Engineer, TSPC Board, Regional Office,
H.No.8-15,1st Floor, Sri Laxmi Complex,Near RTA office,
Sri Vinayak Nagar, NALGONDA 508 201, TELANGANA.

Factory : Simhapuri, Mattapalli Village, Mattampalli Mandal, Suryapet Dist.,-508 204, T.S.
Tel : 08683-227630, Fax: 08683-227629 E-mail : nclworks@nclind.com
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ANNEXURE – XVII
NCL INDUSTRIES LTD
CEMENT DIVISION
MATTAPALLY
STACK EMISSION DATA APRIL TO SEPTEMBER 2021

Stack Attached to process	Kiln -1			Kiln -2			Kiln -3			Cooler -1	Cooler-2	Cooler-3	Cement mill -1	Cement mill -2	Cement mill -3	Packing Plant -1	Packing Plant -2	Packing Plant -3	Coal Mill -1	Coal Mill -2	Lime Stone Crusher -II
	SPM	So2	Nox	SPM	So2	Nox	SPM	So2	Nox	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM	SPM
26.04.2021	shutdown			23.1	80.4	296.1	19.8	72.5	410.7	shutdown	18.7	12.7	21.5	18.6	8.9	24.7	18.7	25.2	23.9	22.4	23.7
22.05.2021				21.5	69.2	315.1	17.1	57.9	387.8		16.8	14.3	17.9	15.4	9.5	22.9	20.5	23.8	21.3	19.1	21.4
17.06.2021				20.8	64.1	304.3	15.7	51.3	399.2		20.1	15.7	19.2	17.3	10.7	25.3	22.7	19.7	24.7	21.7	24.3
22.07.2021				18.4	52.2	324.1	20.6	41.8	436.2		22.7	17.81	21.7	22.68	11.9	23.4	19.8	24.55	25.95	16.5	26.1
18.08.2021				21.3	55.5	313.4	17.6	36.8	379		21.4	16.64	18.4	13.5	9.32	21.9	24.75	22.42	23.7	19.4	25.4
17.09.2021				18.22	42.1	246.5	18	41.1	575.2		22.48	20.39	22.2	21.38	12.65	23.7	22.58	23.96	21.09	22.06	26.7
6 Months Avg				21	61	300	18	50	431		20	16	20	18	10	24	22	23	23	20	25

ANNEXURE - XVII
NCL INDUSTRIES LTD
CEMENT DIVISION
MATTAPALLY

AMBIENT AIR QUALITY DATA APRIL TO SEPTEMBER 2021

Location	Near Security				Near Colony				Near Packing Plant-3				Near Line-2 Crusher			
Parameter ($\mu g/m^3$)	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox
10.04.2020	70	25	10	21	50	16	7	18	66	25	8	22	61	19	10	17
25.04.2020	72	27	9	23	52	17	6	21	64	20	7	20	66	22	11	18
06.05.2021	75	28	13	24	58	21	6	16	72	27	11	20	63	23	7	19
21.05.2021	79	30	12	26	55	19	8	17	69	25	10	23	64	24	9	21
01.06.2021	73	26	11	22	53	18	7	17	79	32	12	23	69	26	9	21
16.06.2021	70	28	9	24	58	21	7	19	77	32	13	26	68	25	10	23
07.07.2021	76	29	13	26	58	21	9	21	66	25	10	25	71	29	11	23
22.07.2021	74	30	12	24	55	19	8	18	69	26	9	22	72	28	11	25
02.08.2021	70	26	12	23	54	19	6	17	73	28	9	21	64	23	7	19
16.08.2021	64	22	10	21	50	17	8	18	75	30	11	23	66	24	13	25
01.09.2021	69	26	13	25	55	18	6	16	72	28	12	24	68	26	9	20
16.09.2021	72	26	11	21	57	21	7	19	69	26	12	25	62	22	10	23
6 Months Avg	**72**	**27**	**11**	**24**	**55**	**19**	**7**	**18**	**71**	**27**	**11**	**23**	**67**	**25**	**10**	**22**

ANNEXURE – XVII
NCL INDUSTRIES LTD
CEMENT DIVISION
MATTAPALLY

FUGITIVE EMISSION DATA APRIL TO SEPTEMBER 2021

Location	Coal Transport								Cement Mill Transport								VRM Silo Top								VRM Additive Feeding							
Direction	Wind Ward Direction				LeeWard Direction				Wind Ward Direction				LeeWard Direction				Wind Ward Direction				LeeWard Direction				Wind Ward Direction				LeeWard Direction			
Parameter ($\mu g/m^3$)	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox	PM_{10}	$PM_{2.5}$	SO_2	Nox
26.04.2021	63	22	7	18	69	26	11	23	67	24	10	21	73	28	11	25	63	24	9	20	71	30	12	25	62	20	10	23	65	24	12	26
23.05.2021	67	25	10	22	77	31	13	25	64	21	8	19	76	30	13	24	60	20	7	16	69	27	10	21	66	23	11	18	72	28	9	22
18.06.2021	61	22	7	19	72	27	9	23	68	24	7	16	79	32	11	21	54	17	9	18	63	23	12	23	62	21	10	23	68	26	7	20
24.07.2021	69	26	12	22	78	33	14	26	72	27	10	20	76	30	13	25	59	19	8	16	68	25	10	21	65	22	8	17	70	28	10	19
18.08.2021	67	25	8	19	76	31	13	23	65	24	11	21	73	28	8	23	62	21	10	20	70	28	11	25	61	20	9	18	67	25	12	24
18.09.2021	63	23	11	22	74	29	14	27	68	26	10	23	78	32	12	26	60	19	8	19	67	26	9	22	63	23	8	20	76	30	11	25
6 Months Avg	65	24	9	20	74	30	12	25	67	24	9	20	76	30	11	24	60	20	9	18	68	27	11	23	63	22	9	20	70	27	10	23

ANNEXURE – XVII
NCL INDUSTRIES LTD
CEMENT DIVISION
MATTAPALLY

NOISE LEVEL DATA APRIL TO SEPTEMBER 2021

Location	Kiln 1		Kiln 2		Kiln -3		Cement Mill -1		Cement Mills -2		Cement Mill -3		Raw Mill 2		Raw Mill 2 (VRM)	
Date	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time
26.04.2021	69	64	73	68	71	66	67	62	68	63	66	61	70	65	72	67
22.05.2021	72	67	74	69	73	68	69	64	67	62	68	63	66	61	71	66
16.06.2021	70	65	73	68	71	66	68	63	66	61	65	60	67	62	69	64
23.07.2021	67	62	72	67	70	65	67	62	69	59	68	63	71	66	68	63
18.08.2021	71	66	73	68	74	69	69	64	68	63	67	62	70	65	66	61
17.09.2021	70	65	72	67	73	68	66	61	69	64	68	63	74	69	67	62
6 Months Avg	70	65	73	68	72	67	68	63	68	62	67	62	70	65	69	64

ANNEXURE – XVII

NCL INDUSTRIES LTD

CEMENT DIVISION

MATTAPALLY

STP Waste Water Analysis - APRIL TO SEPTEMBER 2021

Sample Location	Before Treatment STP						After Treatment STP					
Date	pH	TDS	TSS	COD	BOD	Oil & Grease	pH	TDS	TSS	COD	BOD	Oil & Grease
27.04.2021	7.41	1198	212	265	66	1.5	7.81	975	54	81	11	<1.0
24.05.2021	7.34	1248	220	278	69	1.8	7.69	944	50	73	9	<1.0
19.06.2021	7.32	1205	201	253	62	1.7	7.42	965	57	78	12	<1.0
24.07.2021	7.55	1288	236	269	67	1.5	7.86	992	64	84	15	<1.0
19.08.2021	7.4	1326	247	278	75	1.8	7.64	947	54	79	11	<1.0
18.09.2021	7.32	1370	234	282	80	2.2	7.82	970	62	86	13	<1.0
6 Months Avg	7.39	1273	225	271	70	1.8	7.71	966	57	80	12	<1.0

NCL INDUSTRIES LIMITED :: SIMHAPURI

PLANT AND MINES :: ENVIRONMENTAL CLEARENCE COMPLIANCE REPORT

Half Yearly EC Compliance Report for the period of April to September 2021

MOEF Vide Letter No: Ref: F. No. J-11011/576/2008-IA II (I), Dated 15.12. 2009

A	SPECIFIC CONDITIONS	COMPLIANCE STATUS
i)	No construction work at the proposed project site shall be started without obtaining prior Clearances/approvals for the linked mining component from the Indian Bureau of Mines (IBM) and State Govt. of Telangana. A copy of all the mining lease approvals from IBM & State Govt. of Telangana shall be submitted to the Ministry & Regional Office at Bangalore initiating work at site related to mining.	No construction work at the proposed project site was started without obtaining prior Clearances/ approvals from the Indian Bureau of Mines (IBM) and State Govt. Obtained permission for three mines i. Mattapalli Lime Stone Mines G.O No 65 valid up to 13.10.2030, ii. Gundlapally Lime stone Mines G.O No 64 valid up to 21.10.2040, iii. Sulthanpur Thanda Lime stone Mines GO No 63 valid up to 28.10.2046. A copy of all the mining lease approvals from IBM & State Govt. were submitted to the Ministry & Regional Office at Bangalore before initiating work at site related to mining.
ii)	No construction work at the proposed project site shall be started without obtaining prior Clearances/approvals under the Forest (Conservation) Act, 1980 & subsequent amendments.	No further expansion or modification will be carried out without prior clearances/approvals under the Forest (Conservation) Act, 1980 & subsequent amendments.
iii)	Possibilities shall be explored for the proper & full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) & a feasibility report shall be prepared & submitted to the Ministry & its Regional Office at Bangalore within 3 months from the date of issue of the letter.	11 MW WHR Waste Heat Recovery power project established by using existing kiln and cooler hot gases, CFO obtained from TSPCB, ConsentOrderNo:210522792844Dt:17.02.2021 Photos Enclosed as **Annexure – I**
iv)	Continuous monitoring system to monitor gaseous emissions shall be provided & limit of SPM shall be controlled within 50 mg/Nm3 by installing adequate air pollution control system. Electrostatic Precipitator (ESPs) / Bag house shall be provided to Clinker cooler, Kiln and pre-heater waste gas equipment to control gaseous emissions with in 50 mg/Nm3. Bag filters shall be provided to raw mill, coal mill, cement mill, LS Crushers, fine coal bins and silos, pre-heater top deducting equipments, kiln feed extraction equipment & packing plant etc. The data collected shall be submitted to the Ministry's Regional Office at Bangalore, APPCB and CPCB regularly.	Continuous monitoring Systems and equipments are installed in all major stacks ie; in all the three lines - Kiln, Cooler & Coal mill and cement mills. Equipments connected and uploading data to website of CPCB & TSPCB. In addition to these, two CAAQM stations also installed and connected to CPCB & TSPCB The data SPM being controlled within the limits by installing following Pollution Control Equipments ➢ RABH for Kiln II /Raw Mill ➢ ESPs for Coolers - I , II & III ➢ PJBH for Kiln I & Kiln III ➢ Bag Filters for Cement mills (Line I,II &III) ➢ Bag House for Coal mills I & II ➢ 11MW WHR Waste Heat Recovery power project will be established by using existing kiln and cooler

		hot gases, Dust will be collected in colleting chambers, than gases pass through ESP for further dust control. Bag Filters provided to for all material transfer lines & LS Crushers, fine coal bins and silos, pre-heater top deducting equipments, kiln feed extraction equipment & packing plants etc. The stack emission levels are within 30 mg/Nm3. **ANNEXURE - II**
v)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R.No.826 (E) Dt. 16-11-2009 shall be followed.	Being followed, As per NAAQ standards third party approved by MOEF & CC is engaged to carry out emissions & Ambient Air Quality monitoring. The data collected are submitted to the Ministry's Regional Office at Bangalore, TSPCB and CPCB regularly. The third party monitored reports are enclosed **ANNEXURE-XII**
vi)	Ambient Air Monitoring shall be carried out in the nearby villages & efforts shall be made to control & minimize the particulate matters to bare minimum. The company shall install adequate dust collection & extraction system to control fugitive dust emissions at various transfer points, raw mill handling (unloading, conveying, transporting, stacking), vehicular movement, bagging and packing areas etc. Crusher shall be operated with high efficiency bag filters. All conveyors shall be covered with GI sheets. Covered sheds for storage of materials shall be provided besides coal, cement, fly ash & Clinker shall be stored in silos. Pneumatic system shall be used for fly ash handling.	Ambient Air Monitoring carried out in the nearby villages. Efforts are made to control & minimize the particulate matters to bare minimum. The company has installed adequate dust collection & extraction system like Bag filters & Air slides to control fugitive dust emissions at various transfer points, raw material handling (unloading, conveying, transporting, stacking), vehicular movement, bagging and packing areas etc. Crusher is operated with high efficiency bag filters and water spray system is provided at crusher dump hopper to control fugitive emissions. All conveyors are covered with GI sheets. Covered sheds for storage of materials are provided besides coal, cement, fly ash & Clinker is stored in silos. Pneumatic system is used for fly ash handling. Regular cleaning and water spraying is done to control the dust fugitive emission due to vehicular movement etc. The third party monitored reports are enclosed **ANNEXURE-XII**
vii)	Regular water sprinkling shall be carried out in critical areas prone to air pollution & having high levels of SPM & RPM particularly in mine area & other vulnerable areas. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the CPCB in this regard.	Regular Water Sprinkling is carried out using dedicated three water tankers in critical areas particularly in mine area & other vulnerable areas and Fixed Water Sprinklers are arranged on Roads to suppress the dust. Prone to air pollution & having high levels of SPM & RSPM, ambient air quality parameters are within the limits of norms prescribed by CPCB. **ANNEXURE - III**
viii)	Asphalting / concreting of roads, water sprinkling and dust suppression methods shall be adopted to control dust emission.	Asphalting / concreting of roads, water sprinkling and dust suppression methods are adopted to control dust emission in the cement plant area are carried out. 1. Two no's of Road sweeping machines are being used for cleaning of roads regularly. 2. Water sprinkling is carried out regularly through a dedicated three water tanker to control fugitive emissions.

		3. Fixed Water Sprinklers are installed to suppress the dust while Vehicles movement. Photos are enclosed as **ANNEXURE - III**
ix)	Secondary fugitive emission from all the sources shall be controlled within the latest permissible limits issued by the Ministry & regularly Monitored. Guidelines / Code of Practice issued by the CPCB shall be followed & data submitted to Ministry's Regional Office at Bangalore, CPCB and TSPCB.	Secondary fugitive emission from all the sources is controlled and levels are within the latest permissible limits issued by the Ministry The monitored data are submitted to Ministry's Regional Office. The secondary fugitive emissions are in control and within the prescribed limits as per the Guide lines /code of practice issued by the CPCB. Secondary fugitive emissions are being controlled by adopting the following techniques. a) Storing the raw materials and products in closed sheds. b) Regular water sprinkling is carried out on road. c) Road sweeping machines are being used for cleaning of roads regularly. Photos are enclosed as **ANNEXURE - III**
x)	Asphalting/ concreting of boards and water spray all around the critical areas prone to air pollution and having high levels of SPM & RPM shall be ensured.	Asphalting / concreting of roads, water sprinkling and dust suppression methods are adopted to control dust emission at all around the critical areas prone to air pollution and having high levels of SPM & RPM in the cement plant area are carried out. **ANNEXURE – III**
xi)	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash shall be transported in the closed containers only covered with a tarpaulin and shall not be overloaded. Measures shall be taken for maintenance of vehicles used in mining operation of mineral. Vehicular emissions shall be kept under control and regularly monitored.	Efforts are made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash are transported in the closed containers only covered with a tarpaulin and are not generally overloaded. Measures are taken for maintenance of vehicles used in mining operation of mineral. Vehicular emissions are kept under control and regularly monitored. **ANNEXURE – III**
xii)	Digital processing of the entire lease are using remote sensing technique shall be done regularly once in three years for monitoring land use pattern & report submitted to MOE&F Regional Office, Bangalore.	Digital processing study carried out by MOEFCC accreted consultancy the entire mine lease area. Reports are submitted to RO.

xiii)	Total water from River Krishna shall not exceed 670 Cu.m/day as per the permission accorded by the concerned department. No ground water shall be used as proposed. The water stored in the artificial reservoir made in the mine pit shall be used maximum to reduce ground water consumption. No effluent shall be discharged from the mine to any water or nearby river. All the treated waste water from the work shop of mines shall be treated for oil & grease removal. Treated waste water shall be used in the process and/or for dust suppression, green belt development & other plant related activities etc. No process waste water shall be discharged outside the factory premises and zero' discharge shall be adopted.	Total water consumption from River Krishna has not been exceeded 1962 m3/day as per the CFOs' Plant CFO & HWA Order No: TSPCB/RCP/NCL/HO/CFO/2018- 2563. Dated 19.11.2018. WHR CFO No: 210522792844Dt:17.02.2021 Permission from Irrigation & CAD is accorded to draw water from Krishna river for 4275 KLD. **ANNEXURE – IV** No ground water is used. The rain water is collected and stored in the mine pit which is helping to recharge the ground water. No effluent is discharged from the mine to any water or nearby river. All the treated waste water from the work shop of mines is treated for oil & grease removal. Treated waste water is used in the process and as well as for dust suppression, green belt development & other plant related activities etc. No process waste water is discharged outside the factory premises and zero discharge is being followed.
xiv)	Detailed hydrological study shall be carried out and implementation of recommendations of the detailed hydrological study shall be ensured.	Carried out detailed hydrological study, and implemented the recommendations – **Annexure – V**
xv)	Domestic waste water shall be treated in sewage treatment plant (STP) and treated domestic effluent shall be used for green belt development within the plant premises. Domestic waste from colony and STP shall be segregated into bio-degradable and non-bio degradable. Bio-degradable waste shall be composted & non-bio degradable waste shall be land filled at identified sites. ETP shall also be provided for workshop and mineral separation plant waste water.	Domestic waste water is treated in sewage treatment plant (STP) of 250 KLD capacity and treated sewage is used for green belt development within the cement plant premises. Domestic solid waste from colony and STP are segregated into bio-degradable and non-bio degradable. Bio-degradable waste is composted & non-bio degradable waste is put into identified site of land filled area. There is no effluent generation in the process. The third party monitored reports are enclosed **ANNEXURE-XII**
xvi)	The project proponent shall ensure that no natural water course shall be obstructed due to any mining operations.	No natural water course is in the mining operations.
xvii)	Catch drains & siltation ponds of appropriate size shall be constructed for the working pit, inter burden and mineral dumps to arrest flow or silt & sediment. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desalted, particularly after monsoon, and maintained properly.	There are no overburden and mineral dumps in the mining lease area. However, bunds are made above the mine pit.

xviii)	Garland drain of appropriate size, gradient & length shall be constructed for both mine pit & inter burden dumps and sump capacity shall be designed keeping 50% safety margin over & above peak sudden rainfall (based on 50 years data) & maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper setting of silt material. Sedimentation pits shall be constructed at the comers of the garland drains & desilted at regular intervals.	There are no overburden and mineral dumps in the mining lease area, hence it is not applicable.
xix)	Regular monitoring of ground water level & quality shall be carried out by establishing a network of existing wells & constructing new piezometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, Central Ground Water Board. The frequency of monitoring shall be four times a year-pre-monsoon (April/May), monsoon (August), post-monsoon (November), and winter (January). Data thus collected shall be sent at regular intervals to MOE&F and its Regional Office at Bangalore, Central Ground Water Authority & State Ground Water Board.	Regular monitoring of ground water level & quality are carried out in consultation with Regional Director, Central Ground Water Board, through external approved laboratory manually on monthly basis and the monitored data are sent to MOE&F, RO Chennai. Piezometers are not used presently and for that the procurement process is under progress Analysis Reports Enclosed – **ANNEXURE XII**
xx)	Dimension of the retaining wall at the toe of inter burden benches within the mine to check run-off and siltation shall be based on the rain fall data.	There are no retaining walls, No overburden and No mineral dumps in the mining lease area.
xxi)	Suitable conservation measures to augment ground water resources in the area shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.	Rain water harvesting arrangement for the roof top collection and storm water with proper drainage and settling pits are made in the cement plant and the rain water is collected in the mine pit and this is helping to recharge the ground water.
xxii)	All the bag filter dust, raw meal dust, clinker dust & cement dust from pollution control devices shall be recycled & reused in the process and used for cement manufacturing. Sludge from domestic Sources shall be used as manure for green belt development. Waster oil shall be sold to authorized recyclers / reprocesses.	All the bag filter dust, raw material dust, clinker dust & cement dust from pollution control devices are recycled & reused in the process and used for cement manufacturing. Sludge from domestic sources is used as manure for green belt development. Waste oil is stored and disposed to authorized recyclers / reprocesses.
xxiii)	An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly.	Necessary provisions are made for utilization of High calorific value hazardous waste (Organic waste) from pharma companies used as AFR in the cement kiln. Usage details submitting to RO, TSPCB.
xxiv)	Efforts shall be made to use low grade lime, more fly ash & solid waste in the cement manufacturing.	Efforts are being made to use low grade Lime Stone by mixing with high grade Lime Stone to get required composition of Lime Stone in the Raw meal Preparation. Required quantity of Fly Ash is being added in the manufacturing of cement without compromising in the quality of cement.

xxv)	All the fly ash shall be utilized as per Fly Ash Notification, 1999 subsequently amended in 2003. Efforts shall be made to use fly ash maximum in making Pozollona Portland Cement (PPC).	The fly ash supplies from outside are utilized in making Pozollona Portland Cement (PPC) as per the Fly Ash Notification, 1999 subsequently amended in 2003.
xxvi)	Action plan for the mining, management of over burden (removal, storage, disposal etc.), reclamation of the mined out area & mine closure shall be submitted to the Ministry's Regional Office at Bangalore.	There are no overburden and mineral dumps in the mining lease area. Mine workings are under progress. We will submit the mine closure plan to the Ministry's Regional Office.
xxvii)	Top soil, if any, shall be stacked with proper slope at embarked site(s) only with adequate measures and shall be used for reclamation & rehabilitation of mined out areas.	There is no top soil and the lime stone is out cropped.
xxviii)	The inter burden & other waste generated shall be stacked at embarked dump site(s) only & shall not be kept active for long period. The total height of the dumps shall not exceed 30 m in 3 terraces of 10 m each and the overall slope of the dump shall be maintained to 28 degree. The inter burden dumps shall be scientifically vegetated with suitable native species to prevent erosion & surface run off. Monitoring & Management of rehabilitated areas shall be submitted to MOE & F and its Regional Office, Bangalore on six monthly basis.	There are no overburden and mineral dumps in the mining lease area.
xxix)	Suitable rainwater harvesting & conservation measures to augment ground water resources in the area on long term basis shall be planned & implemented in consultation with Regional Director, Central Ground Water Board in cement plant & mining area to augment ground water resources and use for dust suppression & horticulture.	Rain water harvesting arrangement for the roof top collection and storm water with proper drainage and settling pits are made in the cement plant and the rain water is collected in the mine pit and this is helping to recharge the ground water.
xxx)	The project proponent shall take appropriate mitigative measures to prevent pollution on nearby River and other surface water body, if any.	River Krishna is located about 2 km away from the cement plant and from mine about 4 km and there is no water bodies nearby.
xxxi)	Wet drilling blasting method & provision for the control air emission during blasting using dust collectors etc. shall be used.	Wet drilling method is followed. Delay detonators are used.
xxxii)	Blasting operation shall be done only during the day time and one bench at a time shall be blasted. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders shall be implemented. NOC from the Chief Controller of Explosives shall be obtained.	Blasting operation is done only during the day time and one bench at a time is blasted. Controlled blasting is practiced. NOC from the Chief Controller of Explosives is obtained
xxxiii)	Bench height, width & slope for individual bench shall be properly assessed and implemented. Adequate measures shall be adopted to stabilize the slope before abandonment. The fencing ground the reservoir shall be provided to prevent accident.	Bench height, width & slope for individual bench is properly maintained as per mines safety Act.

xxxiv)	As proposed, green belt shall be developed in at least 54 acres out of total 120 acres in cement and all the mined out area expect used for reservoir. In mining, plantation shall be carried out by planting the native species around mining lease area, OB dumps, around water body, roads etc. in consultation with the local DFO / Agriculture Department. At least 1,500 trees per year shall be planted with a tree density of 2,000 trees per Ha. An action plan shall be submitted in this regard.	Area of the cement plant is 48.12 ha. Out of this 36.38 % i.e., 17.5 ha have already brought under Greenbelt. In addition to this we have already taken up extensive plantation activity. Green belt development is taken up In the Mines area, School, colony and available vacant places. The survival of saplings is good. In all three mines also taken up plantation in consultation with local DFO. The plantation work is carried out and survival is good. Green Belt Details enclosed. **ANNEXURE –VI**
xxxv)	The project proponent shall modify the mine plan of the project at the time of seeking approval for the next mining scheme from the IBM so as to reduce the area for external OB dump by suitably increasing the height of the dumps with proper terracing. It shall be ensured that the overall slope of the dump does not exceed 28 degree.	There is no OB dump.
xxxvi)	The void left unfilled in the mining area shall be converted into water body. The higher benches of excavated void / mining pit shall be terraced & plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.	The mining works are under progress.
xxxvii)	The project Proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna. Action plan for conservation of flora & fauna shall be prepared & implemented in consultation with the State Forest & Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be submitted to the Ministry and its Regional Office within 3 months from the date of issue of this letter.	Obtained NOC from Forest Department. **ANNEXURE – V**
xxxviii)	A final Mine Closure Plan along with details of Corpus fund shall be submitted to the MoEF 5 years in advance of final mine closure for approval.	The mining works are under progress and will submit a final mine closure plan 5 years in advance for approval.
xxxix)	Mechanized open casting shall be adopted & no change in mining technology & scope of working shall be made without prior approval of the MOE & F.	Mechanized open cast mining method is adopted & there is no change in mining technology & scope of working.

xl)	Consent to operate shall be obtained from TSPCB before starting enhanced production from mine.	Obtained Consent to operate from TSPCB. 1. Mattapalli Lime Stone Mines CFO Order No: TSPCB/CFO/NLG/HO/2017-3264 Dt: 03.03.2017 validity 31.03.2022. 2. Gundlapally Lime stone Mines CFO order No: TSPCB/CFO/NLG/HO/2017-3265 Dt: 03.03.2017 validity 31.03.2022. 3. Sulthanpur Thanda Lime Stone Mines CFO Order No: TSPCB/CFO/NLG/HO/2017-3266 Dt: 03.03.2017 validity 31.03.2022
xli)	Permission & 'Recommendations' of the State Forest Department regarding impact of cement plant & mining activities on the surrounding Reserve Forests Viz. Sulthanpur RF, Tangeda RF, Regulagadda & Gurrambodu RF located with 10 KM radius of the project site shall be obtained & implemented. Further, Conservation plan for the conservation of wild fauna in consultation with the State Forest Department shall be prepared & implemented.	Obtained NOC from Forest Department. **ANNEXURE – V**
xlii)	Rehabilitation & Resettlement Plan for the project affected population including tribals as per the policy of the State Govt. in consultation with the State Govt. of A.P shall be implemented. Compensation paid in case shall not be less than the norms prescribed under the National Resettlement & Rehabilitation Policy, 2007.	No population is effected in mining area.
xliii)	All the safety norms stipulated by the DGMS shall be implemented.	All the safety norms stipulated by the DGMS are being implemented.
xliv)	Acoustic enclosures shall be provided to control noise wherever necessary. Mine machine shall be provided with silencers. Noise shall also be controlled from cooler fans, compressor house, cement mill & raw mill, cement plant & drilling machines, excavator, blasting at mine site using appropriate noise control measures.	Acoustic enclosures provided to control noise in DG sets. Noise in cooler fans, compressor house, cement mill, raw mill & drilling machines, excavator, persons involved for blasting at mine site and controlled noise levels.
xlv)	A separate budget shall be kept for the occupational health surveillance within and outside the campus in the nearby villages.	A separate budget is kept for the occupational health surveillance within and outside the campus in the nearby villages. Conducting medical camps in the surrounding villages by arranging outside doctors and are providing medicines to the patients. Providing dispensary facility and in case of emergency providing ambulance facility to the nearby villagers. **ANNEXURE-VII**
xlvi)	Efforts shall be made to control flurosis in the area.	Flurosis free water is supplied to the near-by villages to control flurosis in the area. RO plants are installed in the colony premises and nearby villages for drinking water purpose. **ANNEXURE-VII**
xlvii)	All the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for the Cement Plants shall be	All the recommendations made in the Charter on Corporate Responsibility for Environmental

	implemented.	Protection (CREP) for the Cement Plants are implemented. 1. Primary health center was established in plant premises and providing ambulance service for 24hrs. 2. Arranging regular heath checkup camps in nearby villages with free services. 3. Provided free education pre primary school to Jr College for employee children's and nearby villages. 4. Provided RO Plant for drinking water. 5. Replaced the damaged filter bags with new bags at all Air Pollution control Bags Filters. 6. Reduced the emission of Particulate Matter below 30 mg/ Nm^3. 7. Fugitive emissions' are controlled at raw materials/ products storage and transfer points by installing Air Pollution Control Devices 8. Tripping of the Kiln ESP is minimized by water spraying in the cooler.
xlviii)	The company shall comply with the commitments made during Public Hearing on 26th May, 2009.	The commitments made during Public Hearing are implemented.
xlix)	This environmental clearance is subject to measures to be taken by the industrial association as identified by the TSPCB vide its letter No.45/PCB/CFE/BO/EC/2007 Dt.15th June, 2007.	The Required measures are taken and the environment clearances are obtained.
B	**GENERAL CONDITIONS**	**COMPLIANCE**
i)	The project authority shall adhere to the stipulations made by TSPCB & State Government.	The stipulations made by TSPCB are adhered regularly.
ii)	No further expansion or modification of the plant shall be carried out prior approval of this Ministry.	No further expansion or modification of the plant will be carried out prior approval of the ministry.
iii)	The gaseous & particulate matter emissions from various units shall conform to the standards prescribed by TSPCB. At no time, the particulate emissions from the cement plant shall exceed TSPCB limit. Interlocking facility shall be provided in the pollution control equipment so that in the Event of the pollution control equipment not working, the respective unit(s) is shut down automatically.	Installed online continuous ambient air quality monitoring equipments as well as online stack monitoring equipments and as per the data the parameters are well within the limits. Interlocking facility is provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit(s) will be shut down automatically. **ANNEXURE – II**
iv)	Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and stack emissions shall be carried out regularly in consultation with APPCB & report submitted to TSPCB quarterly & to Ministries	Monitoring of ambient air quality and stack emissions are carried out regularly in consultation with TSPCB & report submitted to TSPCB monthly & to Ministries Regional Office at Chennai half-yearly. The third party monitored reports are enclosed **ANNEXURE-XII**

	Regional Office at Bangalore half-yearly.	
v)	The company must harvest the rainwater from the rooftops & storm water drains to recharge the ground water and use the same for the various activities of the project to conserve fresh water.	Rain water harvesting arrangement for the roof top collection and storm water with proper drainage and settling pits are made in the cement plant and the rain water is collected in the mine pit and this is helping to recharge the ground water.
vi)	The company shall undertake eco-development measures including community welfare measures in the project area.	Lot of community welfare measures in the project area are being implemented/provided and it is continuing as below: Organizing medical camps in the surrounding villages, aids to village schools, dispensary and ambulance facilities for villagers in emergency etc. **ANNEXURE – VII**
vii)	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) & 70 dBA (Night time).	The overall noise levels in and around the plant area is kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels are monitored at six locations during day and night time and as per the reports the levels are within the limit as per the reports. The third party noise levels are monitored regularly and the reports are enclosed **ANNEXURE-XII**
viii)	Proper housekeeping shall be taken up. Regular annual examination of all the employees shall be carried out from the occupational health point of view & records maintained.	Maintaining good housekeeping. OHS is carried out for all employees and records' are maintained. Occupational health surveillance (OHS) programs are done, Total 90 Medical Camps are conducted; total 6199 No's are benefited during the period April to September 2021.
ix)	A separate environmental cell to carry out various management & monitoring functions shall be set up under the control of Senior Executive.	A separate environmental cell is set up under the control of Senior Executive. The environmental parameters are monitored through an approved external laboratory. **ANNEXUR– VIII**
x)	Occupational health surveillance program shall be done on a regular basis & records maintained. The program must include lung function and sputum analysis tests once in 6 months.	Occupational health surveillance (OHS) program is done Total 90 Medical Camps are conducted; total 6199 No's are benefited during the period April to September 2021. **ANNEXURE – VII**
xi)	As proposed, Rs.19.40 Crores & Rs.4.70 Crores shall be embarked towards the total capital cost & recurring cost/annum for environmental pollution control measures & shall be suitably used to implement the conditions stipulated by the MOE & F as well as State Government. The funds so provided shall not be diverted for any other purpose.	As proposed has been embarked towards the total capital cost & recurring cost/annum for environmental pollution control measures. The funds earmarked have not been diverted for any other purpose.
xii)	The company shall provide housing for construction labor within the site with the necessary infrastructure & facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	The company has provided housing for construction labor within the site with the necessary infrastructure & facilities such as fuel for cooking, toilets, safe drinking water, medical health care etc. The housing was in the form of temporary structures and removed after the completion of the project construction..

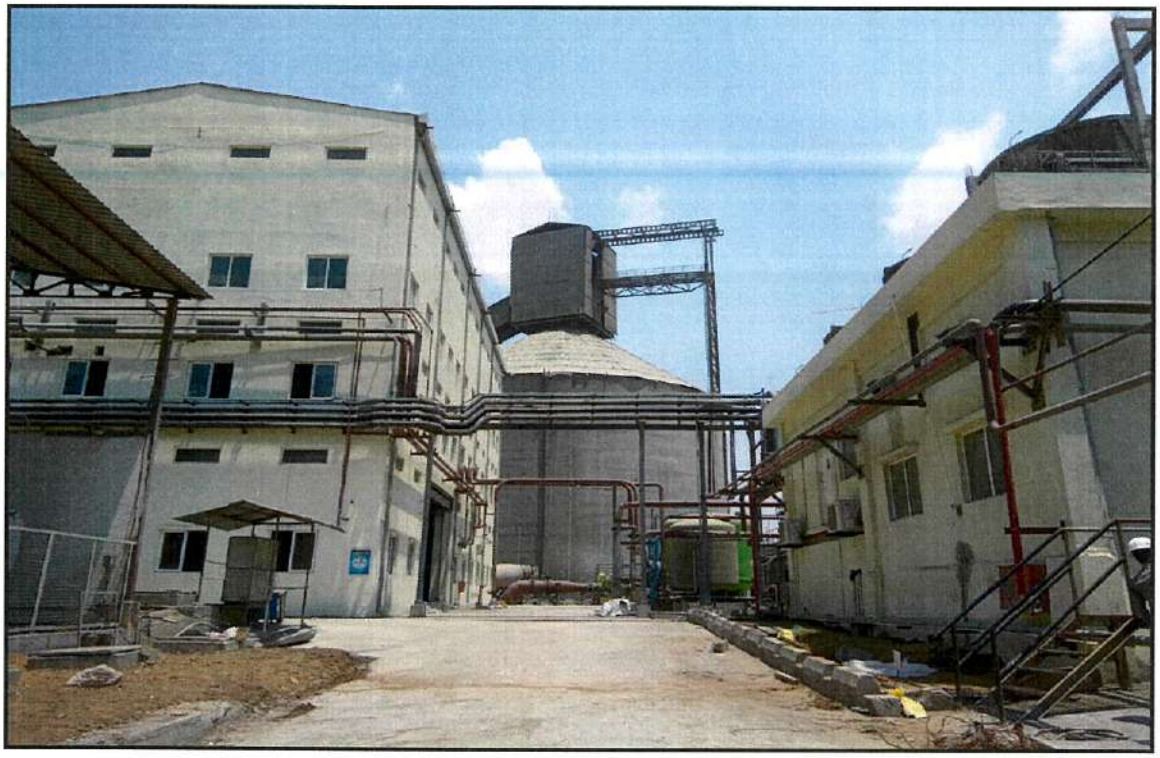
xiii)	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zillah Perished/ Municipal Corporation, Urban Local Body & the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearances letter shall also be put on the web site of the company by the proponent.	A copy of the EC was sent to Panchayat.
xiv)	The project proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website & shall update the same periodically. It shall simultaneously be sent the Regional Office of MOEF, the respective Zonal Office of CPCB & the APPCB. The criteria pollutant levels namely; RSPM, PM10, PM2.5, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored & displayed at a convenient location near the main gate of the company in the public domain.	Uploaded the status of compliance of the stipulated EC conditions, including results of monitored data on their website & updating the same periodically. The critical sectoral parameters monitored & displayed at the main gate of the company **ANNEXURE – IX**
xv)	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both the copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of TSPCB. The Regional Office of this Ministry at Bangalore / CPCB / SPCB shall monitor the stipulated conditions.	Submitting six monthly compliance reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both the copies as well as by e-mail) to the Regional Office of MOEF, the Zonal Office of TSPCB. https://nclind.com/environmental-statement.html **ANNEXURE – X**
xvi)	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State PCB as prescribed under the Environmental (Protection) Act, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions & shall also be sent to the Regional Office of the MOEF at Bangalore by e-mail.	Submitting Form V to TSPCB and also uploaded to company's web site. https://nclind.com/environmental-statement.html **ANNEXURE – XI**
xvii)	The project proponent shall inform the public that project has been accorded environmental clearance by the Ministry & copies of the clearance letter are available with the APPCB and may also be seen at web site of the MOE & F at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional Office.	News paper advertisement in two local news papers namely The Hindu & Andhra jyothi and submitted the copy of same to MoEF, RO.
xviii)	Project authorities shall inform the Regional Office at Bangalore as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	The date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work was informed to RO as well as the Ministry.

ANNEXURE – 1

WHR POWER PLANT PHOTOS

TURBINE & GENERATOR

STG BULDING



COOLING TOWER

WATER TREATMENT PLANT

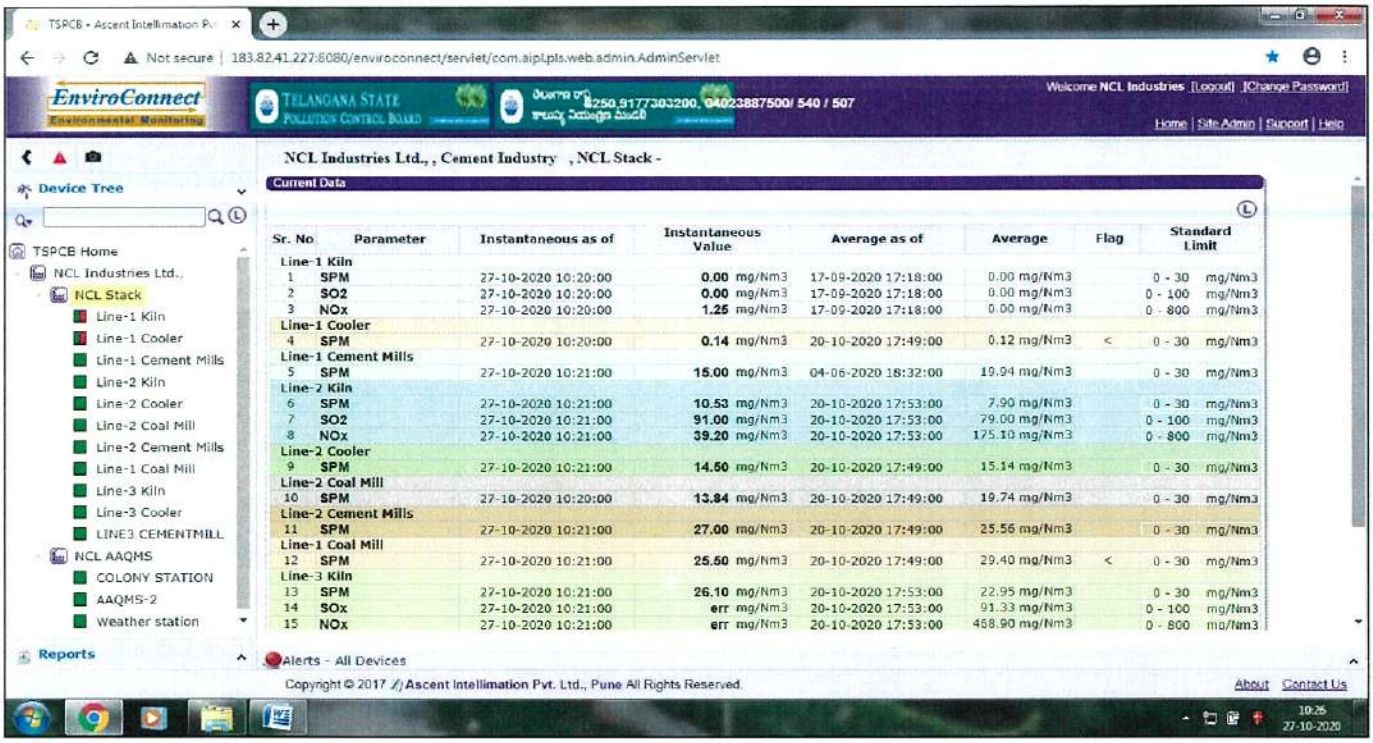
AQC 2 & AQC 3 BOILER

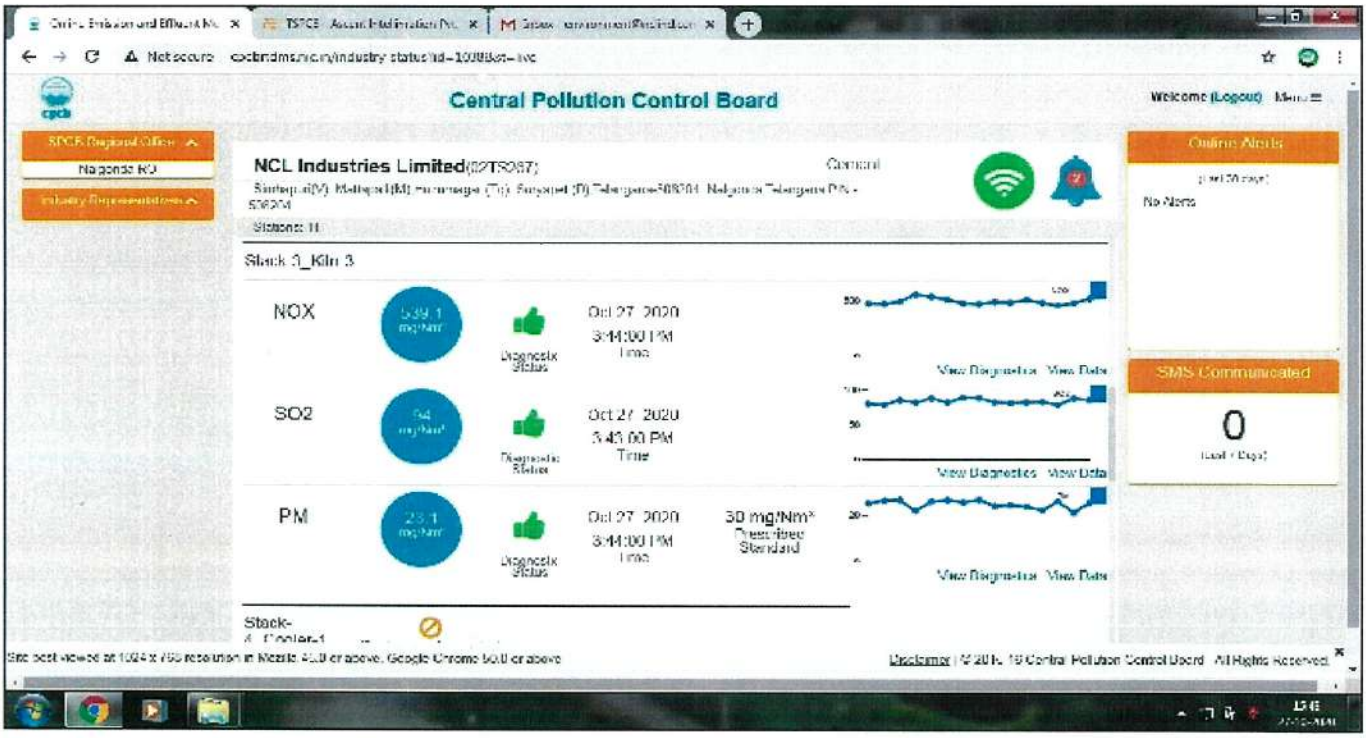
PREHEATER BOILER 3

ANNEXURE II

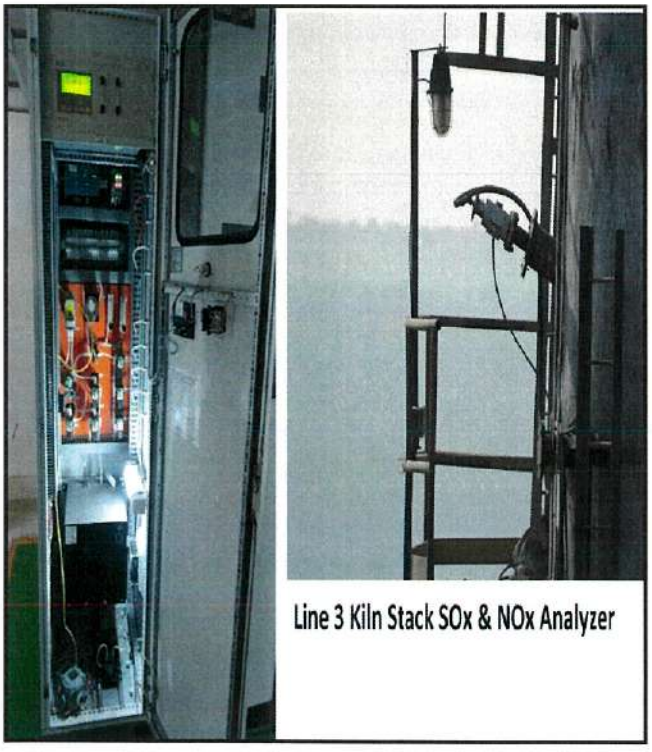
NCL INDUSTRIES LIMITED: SIMHAPURI			
On-line Continuous Stack Monitoring System (OCSEMS) and Continuous Ambient Air Quality Monitoring Systems (CAAQMS) Stations			
S.No.	Stack attached	Type of Monitoring System (Emission / Effluent / CAAQMS)	Stack ID
1	Line-1 Kiln	Emission	NCL Industries Limited-Stack_1_Kiln_1
2	Line-1 Cooler	Emission	NCL Industries Limited-Stack_4_Cooler_1
3	Line-1 Cement Mills	Emission	NCL Industries Limited-Stack_9_Cement Mill_1
4	Line-1 Coal Mill	Emission	NCL Industries Limited-Stack_7_CoalMill_1
5	Line-2 Kiln	Emission	NCL Industries Limited-Stack_2_Kiln_2
6	Line-2 Cooler	Emission	NCL Industries Limited-Stack_5_Cooler_2
7	Line-2 Coal Mill	Emission	NCL Industries Limited-Stack_8_CoalMill_2
8	Line-2 Cement Mill	Emission	NCL Industries Limited-Stack_10_CementMill_2
9	Line-3 Kiln	Emission	NCL Industries Limited-Stack_3_Kiln_3
10	Line-3 Cooler	Emission	NCL Industries Limited-Stack_6_Cooler_3
11	Line-3 Cement Mill	Emission	NCL Industries Limited-Stack_11_Cement Mill_3
12	Colony	CAAQMS	NCL Industries Limited-CAAQMS_01_Colony
13	Cement Plant	CAAQMS	NCL Industries Limited-CAAQMS_02_CementPlant

TSPCB & CPCB OCEMS & AAQMS UPLOADING SITE

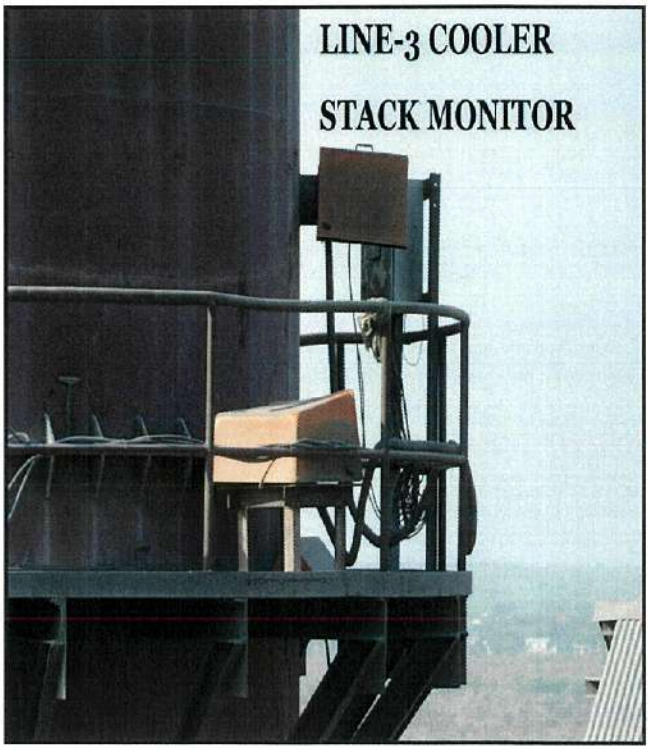




CAAQMS IN COLONY



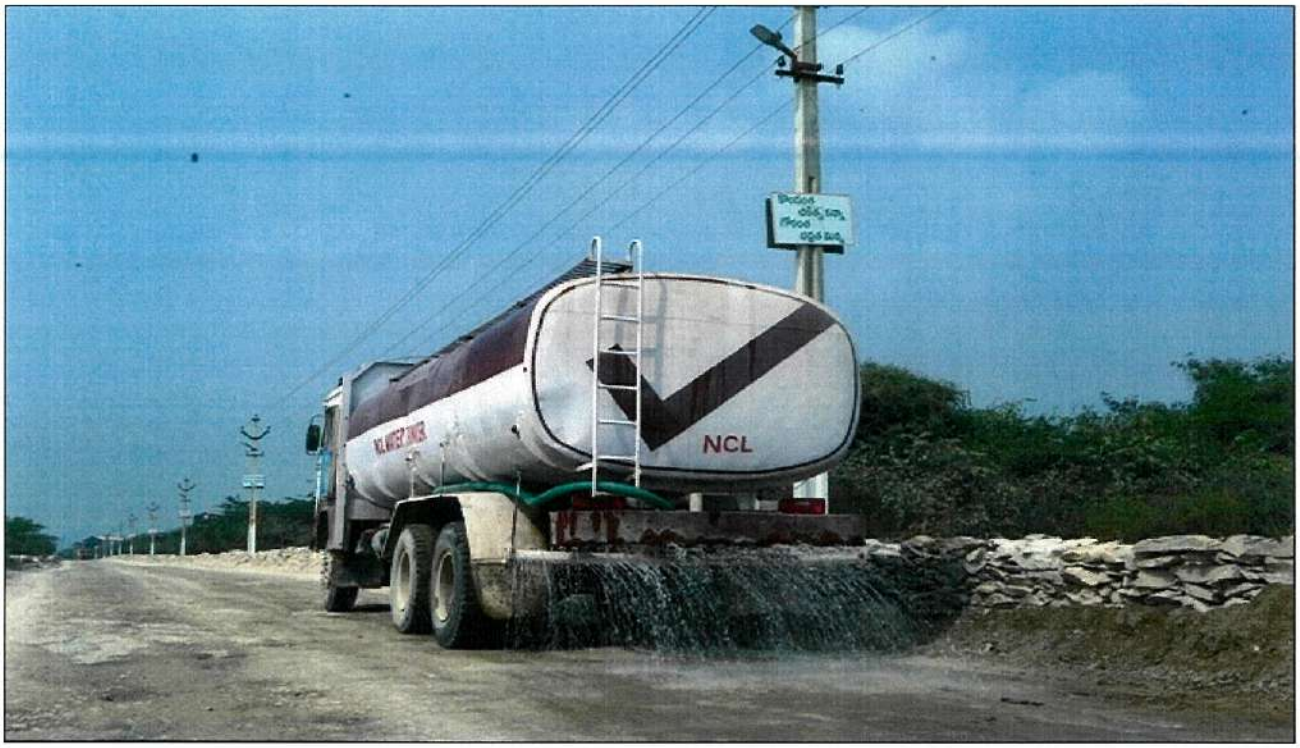
Line 3 Kiln Stack SOx & NOx Analyzer



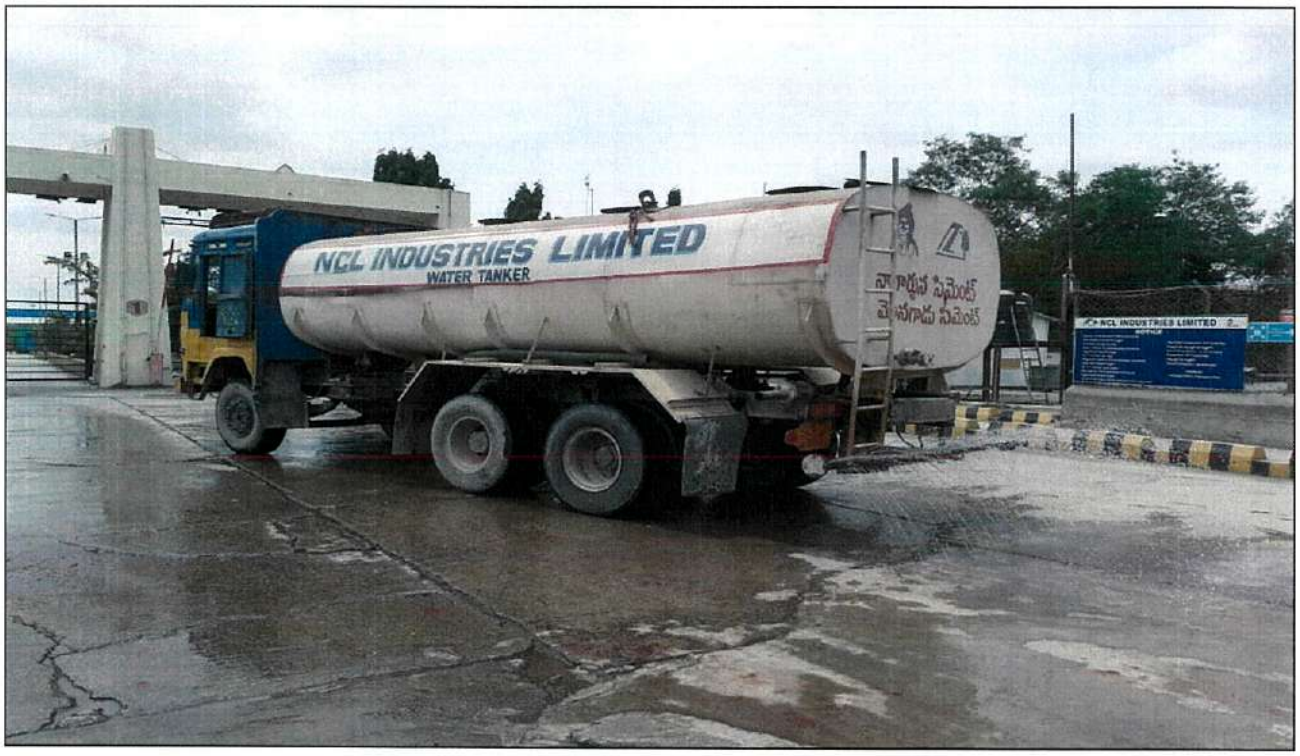
ANNEXURE-III

ALL RAW MATERIALS ARE TRANSPORTED IN CLOSED CONTAINERS/ FULLY ENCLOSED

Road wetting with water tanker at Mines Roads & Plant



ROADS ARE CLEANING WITH ROAD SWEEPING MACHINES

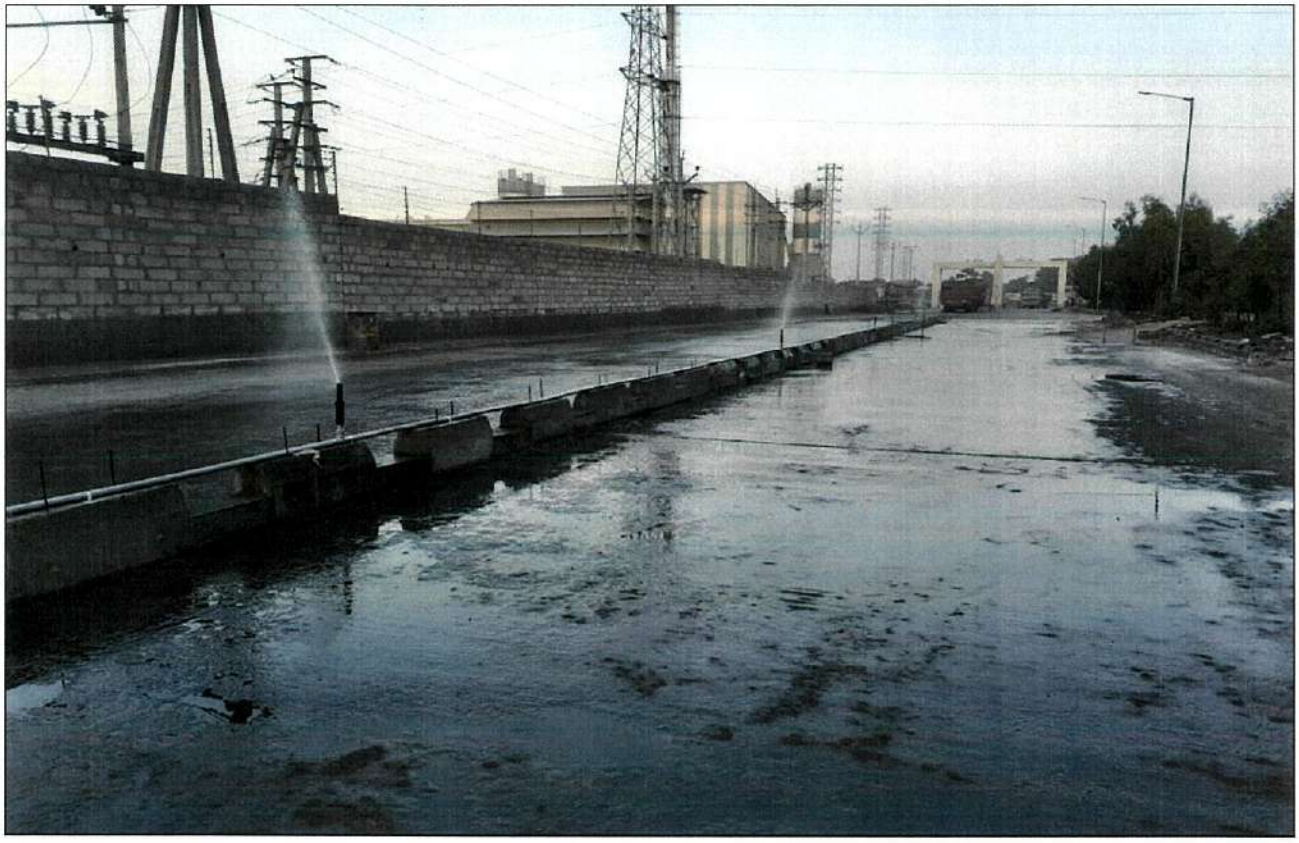


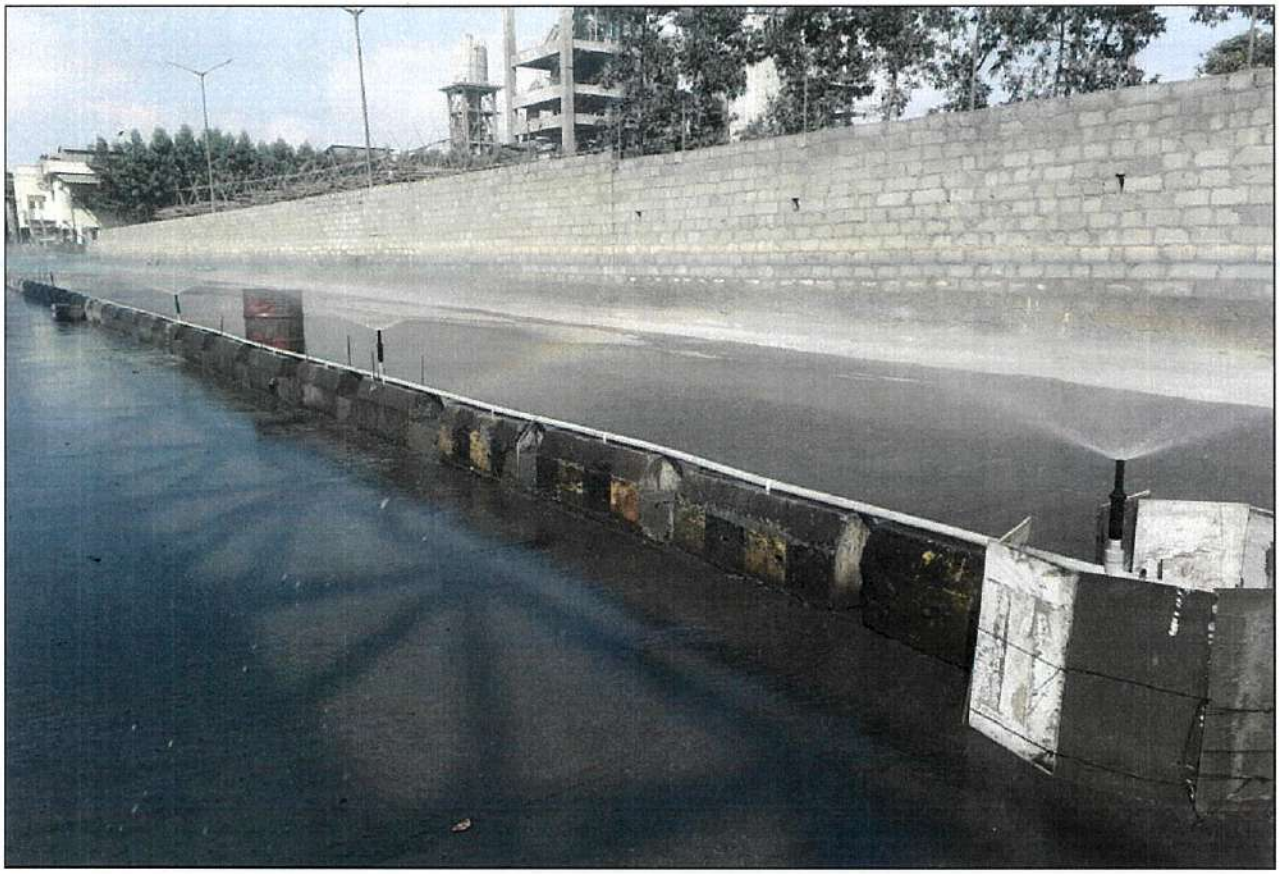
1. **MODEL TPS-VACTRUCK-750 (HD-SM)**

TRUCK MOUNTED HEAVY DUTY INDUSTRIAL VACUUM CLEANING MACHINE WITH SWEEPING ATTACHMENT AND – OPTIONAL WATER SPRAY / JETTING SYSTEM

2. **MODEL : TPS VAC NEEP/3D, MAKE TPS INFRASTRUCTURE LTD**

FIXED WATER SPRINKLERS ARE ARRANGED ON ROADS





FIXED WATER SPRINKLERS ARE ARRANGED ON ROADS

ANNEXURE - IV

Water Permission

GOVERNMENT OF ANDHRA PRADESH
IRRIGATION & CAD DEPARTMENT

From:
Sri K. Ravi, M.Tech.,
Executive Engineer,
Krishna Central Division,
VIJAYAWADA.

To
The Collector &
District Magistrate,
Nalgonda District,
NALGONDA.

Letter No.AB/A4/ 15 Dated 8 -1-2015.

Sir,

Sub:- I & CAD Department – Industrial Water Supply SLSWCC – Permission to draw a Quantum of 0.055 TMC of water per year from surplus water from River Krishna to M/S NCL Industries (Captive Power Plant) Sy. No. 1 to 6 for the Cement Industry, Simhapuri Village, Mattampalli Mandal, Nalgonda District – Permission accorded - Revenue Concurrence - Requested - Regarding.

Ref:-1. Engineer-in-Chief (I), Hyderabad Endt. No. DCE.IV/ OTM.5/ S2/ 7311/2011, Dated 15-12-2011.
2. G.O.M.S No. 97 I & CAD (PW Reforms) Department, Dt. 22-10-2013.
3. Engineer-in-Chief (I), Hyderabad Endt. No. DCE.IV/ OTM.5/ S2/ 7311/2011, Dated 25-10-2013.
4. Superintending Engineer, Irrigation Circle, Vijayawada Memo. No. DB/JTO.7/551[RC], Dated 12-6-2014.

****

In the reference 1st cited, that the Engineer in Chief, (I), Hyderabad has submitted proposals to Government for according permission to draw water by M/S NCL Industries Limited, Simhapuri (V), Mattampalli (M), Nalgonda District from the surplus water of Krishna River to an extent of 4275 KL/Day or 0.055 TMC of water per Year under concurrence.

In the reference 2nd cited, Government has also accorded permission in G.O.Ms. No. 97 I & CAD (PW Reforms) Department, Dated 22-10-2013 to draw a Quantum of 4275 KL/ Day or 0.055 TMC per annum of Water from Krishna River to M/S NCL Industries Limited, Simhapuri Village, Mattampalli Mandal, Nalgonda District for a period of 10 Years with usual terms and conditions with regard to Pollution, Royalty Charges.

In the reference 3rd cited, Engineer-in-Chief, (I), Hyderabad have requested to obtain the necessary Revenue concurrence from District Collector, Nalgonda and Pollution Control Board Clearance and also instructed to submit the draft agreement proposals along with the permission issued by the District Collector, Nalgonda as well as Pollution authorities.

Therefore, I request the District Collector, Nalgonda to accord necessary Revenue Concurrence for drawal of 4275 KL/Day or 0.005 TMC of water from Krishna River by M/S NCL Industries Limited, Simhapuri Village, Mattampalli Mandal, Nalgonda District for a period of 10 Years at the earliest for onward submission of the draft agreement proposals to higher authorities.

Encl:- Copy of reference 1st to 3rd.

Yours faithfully,
Sd/- K. Ravi,
Executive Engineer,
K.C. Division :: Vijayawada.

Copy submitted to Superintending Engineer, Irrigation Circle, Vijayawada for favour of information and taking further necessary action.

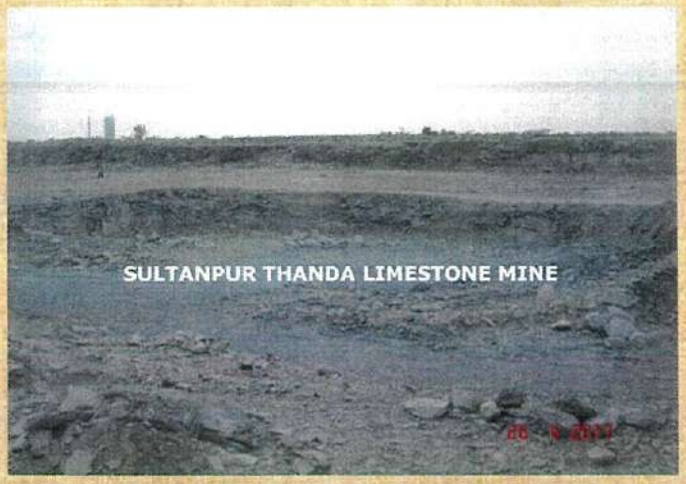
Copy to Deputy Executive Engineer, Head Quarters Sub-Division, Vijayawada for information and necessary action. He is requested to persue the matter from the District Collector, Nalgonda.

Copy to M/S NCL Industries Limited, Simhapuri Village, Mattampalli Mandal, Nalgonda District for information. The Industries is requested to obtain the necessary permission of Pollution Control Board Clearance Certificate and submit the same to this office for taking further necessary action.

Sd/- K. Ravi,
Executive Engineer,
K.C. Division :: Vijayawada.

//t.c.f.//
08/01/15
Dvnl. Accounts Officer(W)
K.C. Division :: Vijayawada
8/1/15

SURFACE HYDROLOGICAL, GEOLOGICAL AND HYDRO-GEOLOGICAL CONDITIONS OF SULTANPUR THANDA LIMESTONE MINE OF M/S N C L INDUSTRIES LTD IN PEDAVEEDU VILLAGE, MATTAMPALLI MANDAL AND IT'S ENVIRONS IN SURYAPET DISTRICT, TELANGANA STATE



Prepared For

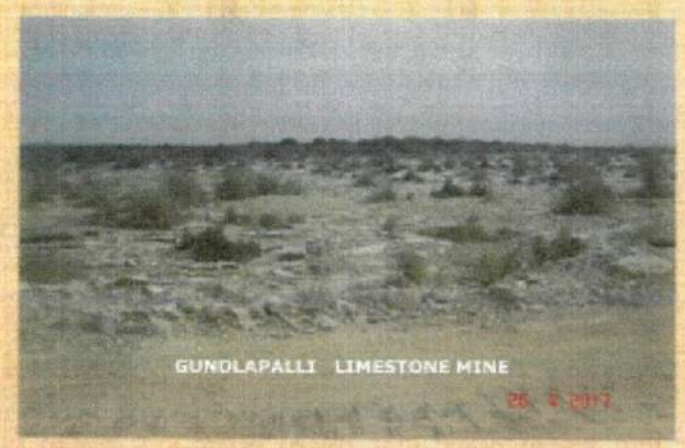
M/s. N C L INDUSTRIES LTD. CEMENT DIVISION
SIMHAPURI, MATTAPALLI VILLAGE
MATTAMPALLI MANDAL,
SURYAPET DISTRICT, TELANGANA – 508 204

Prepared By

GLOBAL CONSULTANTS,
 # F8 & F9 Dollar Chambers
6-2-40, A.C. Guards,
Holy Mary Road,
Hyderabad – 500 004
Phone : 040-23392801,

MAY, 2017

SURFACE HYDROLOGICAL, GEOLOGICAL AND HYDRO-GEOLOGICAL CONDITIONS OF GUNDLAPALLI LIMESTONE MINE OF M/S N C L INDUSTRIES LTD IN MATTAMPALLI MANDAL AND IT'S NEIGHBOURHOOD IN SURYAPET DISTRICT, TELANGANA STATE



Prepared For

M/s. N C L INDUSTRIES LTD. CEMENT DIVISION
SIMHAPURI, MATTAPALLI VILLAGE
MATTAMPALLI MANDAL,
SURYAPET DISTRICT, TELANGANA – 508 204

Prepared By

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 # F8 & F9 Dollar Chambers
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Holy Mary Road,
Hyderabad – 500 004
Phone : 040-23392801,

MAY, 2017

ANNEXURE –V

PERMISSION LETTER FROM FOREST DEPARTMENT

GOVERNMENT OF TELANGANA
FOREST DEPARTMENT

From:
Sri. G. Mukund Reddy, Dy.C.F.,
District Forest Officer,
Suryapet.

To:
The Managing Director,
M/s NCL Industries Ltd.,
Hyderabad.

RC.No.75/2017/S, Dt:27.11.2018

Sir,

Sub : TSFD - TSPCB - RO - NLG - Environmental Public Hearing (EPH) - M/s NCL Industries Ltd. has proposed for enhancement of Sulthanpur Thanda Lime stone Mine capacity from 0.05 MTPA to 1.0 MTPA located at Sy.No.540 (P), Pedaveedu (V), Mattampally (M), Suryapet District - Status report - Reg.

Ref: 1. NCL Industries Ltd., Ref.No.NCL/Forests Dept, Dt.01.09.2018.
2. NCL Industries Ltd., Ref.No.NCL/Forests Dept, Dt.26.11.2018.

* * *

With reference to the subject and reference cited above, the M/s NCL Industries Ltd., had requested for Status report for the proposal of enhancement of Sulthanpur Thanda Lime Stone Mine production capacity from 0.05 MTPA to 1.0 MTPA located in Sy.No.540 (P), of Pedaveedu (V), Mattampalli (M), Suryapet District in mine lease area of 42.83 Ha.

The undersigned had inspected the mining area together with Forest Range Officer, Huzurnagar 15th September, 2018. The plan submitted by M/s NCL Industries Ltd., showing the Mining Lease area (With GPS Readings) for Limestone Deposit in Sy.No.540 over an extent of Ac. 105.32 gts (42.83 Ha) in Pedaveedu Village, Mattampalli Mandal, Suryapet District (Erstwhile Nalgonda District), Duly approved by Tahasildar, Mattampally Mandal and Asst. Director of Mines & Geology, Miryalaguda has also been referred.

It is confirmed that:

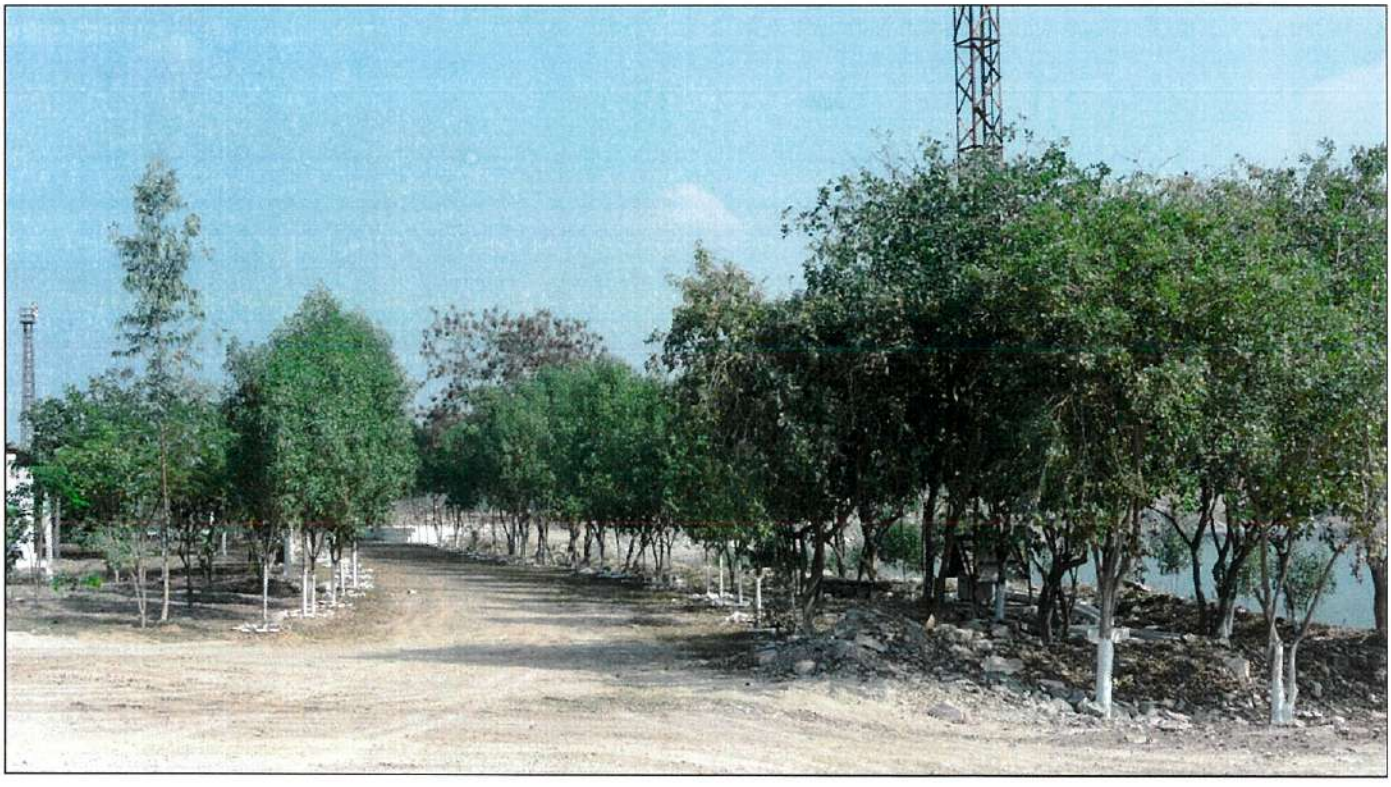
1. The said location does not fall in the Forest Area, but the area is adjacent to the Reserve Forest about 170 meters and it should comply recent guidelines/ Circular from the MoEF.
2. There are no dispute issues with Forest Department but the wasta material mainly the panel cut portions is being dumped along road side even in Reserve Forest areas which has to be removed and in future waste disposal to be in designated areas as per mine plan.
3. The area is completely preexisting mining area of NCL Industries Ltd., from 1996. Hence the green cover other conditions that are in mining plan to be properly implemented.
4. No perennial nallah or streams are seen within the area.
5. There are no endangered species of flora existing in the area and it has neither ecological nor economic importance and normal species of brushes and bushes are only seen.
6. No sanctuary and national parks does not exist within the above area.

Hence, it is inform that, there are no issues for enhancement of Sulthanpur Thanda Lime Stone Mine production capacity from 0.05 MTPA to 1.0 MTPA located in Sy.No.540 (P), of Pedaveedu (V), Mattampalli (M), Suryapet District in mine lease area of 42.83 Ha.

District Forest Officer,
Suryapet.

GREENBELT IN MINES

GREEN BELT IN MINES



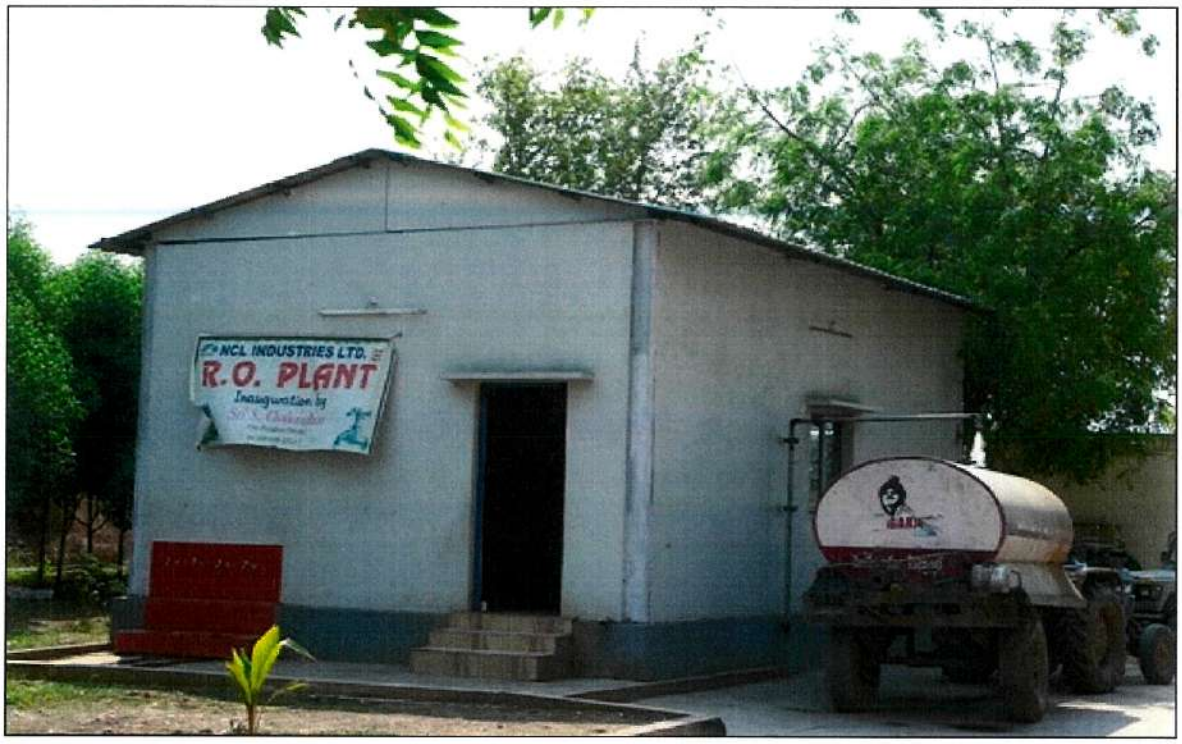
GREEN BELT DEVELOPMENT

GREEN BELT DEVELOPMENT IN MINES

ANNEXURE –VII

PRIMARY HEALTH CENTER

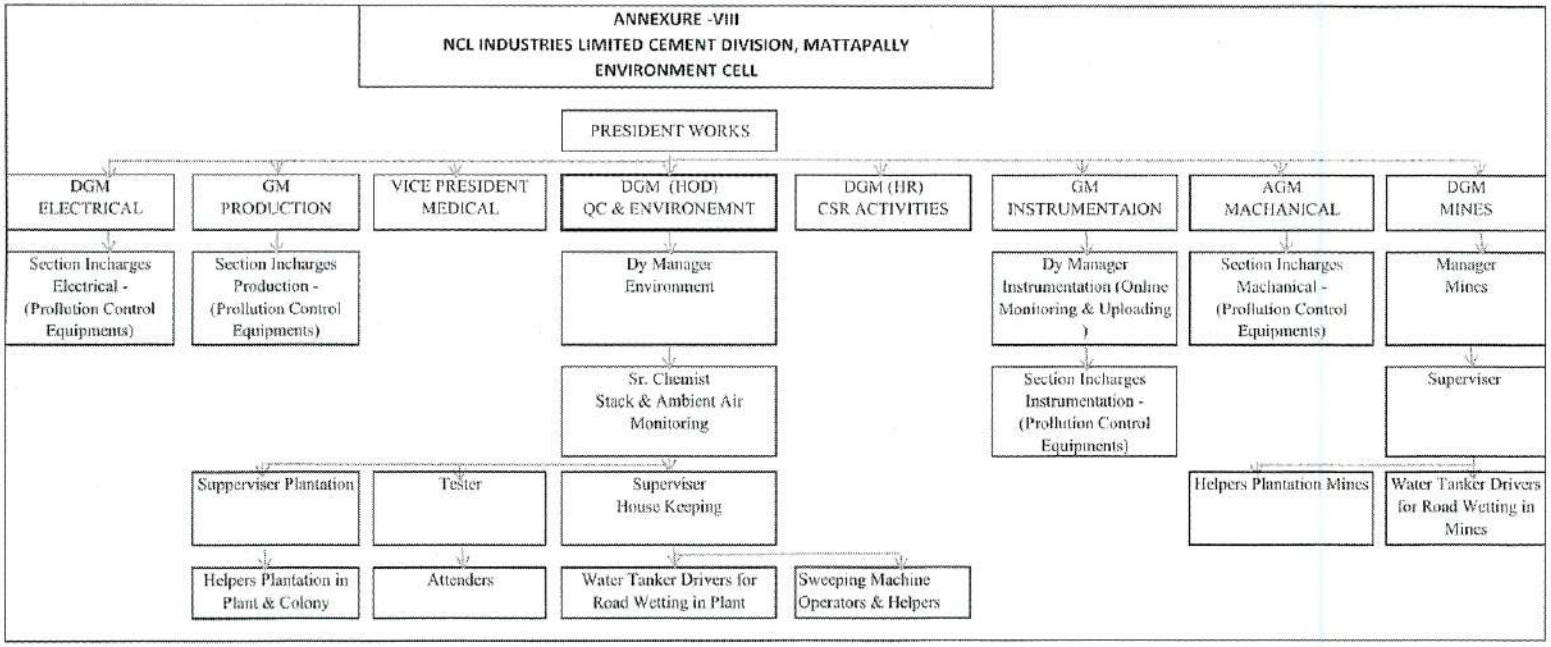
Water Treatment Plant in Colony



ANNEXURE -VIII

NCL INDUSTRIES LIMITED CEMENT DIVISION, MATTAPALLY

ENVIRONMENT CELL



ANNEXURE –IX

THE CRITERIA POLLUTANT PARAMETERS LEVELS ARE DISPLAYED AT MAIN GATE

Submission letter of EC – Compliance Reports for the Period of Oct to March 2021

NCL INDUSTRIES LIMITED
CEMENT DIVISION

NCL GROUP

AN ISO 9001 : 2015 COMPANY
CIN : L33130TG1979PLC002521

NCL/QC/ 2021-22/905 Date: 31.05.2021

The Director (S),
Regional Office (south Eastern Zone),
Government of India,
Ministry of Environment & Forest and Climate Change,
1st 2nd Floor, HEPC Building, No.34, Cathedral Garden Road,
Nungambakkam, Chennai – 600034.

Dear Sir,

Sub: Submission of Six month Compliance Report of the Environment Clearance accorded to M/s. NCL Industries Ltd, Simhapuri, Nalgonda (Dt), Telangana.

Ref. 1. Expansion of Cement Plant Environment Clearance.
F. No: J- 11011/576/2008-IA II(I), Dated: 28.10.2016.
2. Cement Plant & Lime stone Environment Clearance:
F.No: J-11011/576/2008-IA II (I), Dated 15.12.2009.

We submit herewith the conditions wise Compliance Status Report for the above referred Environment Clearances accorded by the MoEFCC along with test reports of Ambient Air Quality, Fugitive Emission, Stack Monitoring and Noise levels, Water & Waste Water Analysis Reports and Ground Water Level Monitored by accredited third party laboratory M/s. Lawn Enviro Associates for the period **October to March 2021** for the kind information.

Thanking you,

Yours Faithfully,

For NCL INDUSTRIES LTD.

PRESIDENT (WORKS)

Encl: 1. Compliance Status Report of F. No: J- 11011/576/2008-IA 11(I), Dated: 28.10.2016. along with Monthly Monitoring Reports.
2. Compliance Status Report of F. No: J- 11011/576/2008-IA 11(I), Dated: 15.12.2009. along with Monthly Monitoring Reports.

CC to : 1. Regional Directorate – Bengalore, CPCB Zonal Office, A-Block, Nisarga Bhavan, 1st and 2nd Floors, 7th D Cross, Thimmaiah Road, Shivanagar, BENGALURU – 560079.
2. The Environment Engineer, TSPCB Board, Regional Office, H.No.6-2-888/B, 2nd Foolr, Laxmi Complex, Near Clock Tower, NALGONDA – 508001.

Factory : Simhapuri, Mattapalli Village, Mattampalli Mandal, Suryapet Dist.,-508 204, T.S.
Tel : 08683-227630, Fax: 08683-227629 E-mail : nclworks@nclind.com
Regd. & Corporate Office: 7th Floor, NCL Pearl, Near Rail Nilayam, S.D. Road, Secunderabad-500 026. Telangana, India.
T : 91-40-30120000, 2980 7868/69, Fax: 91-40-2980 7871, E-mail: ncl@nclind.com | Website : www.nclind.com

ANNEXURE - XI

SUBMISSION LETTER OF ENVIRONMENT STATEMENT AUDIT REPORT - FORM V FOR 2020-21

NCL INDUSTRIES LIMITED
CEMENT DIVISION

NCL GROUP

AN ISO 9001 : 2015 COMPANY
CIN : L33130TG1979PLC002521

// REGISTERED POST A/D//

NCL/QC/ENVT/2021-22/1203 Date:17.09.2021

To

The Member Secretary,
TSPC Board,
Paryavaran Bhavan,
A-3, Industrial Estate,
Sanathnagar,
HYDERABAD – 500 018.

Sub: Submission of Environmental Statement Audit Report Form – V for the Year 2020 -21.

Ref: Amendment of CFO&HWA Order No: - TSPCB/RCP/NLG/HO/CFO/2018 - 2563; Dated: 19/11/2018.

Dear Sir,

With reference to the above cited subject, we are here with submitting three copies of Environmental Statement Audit Form –V for the financial year ending March 2021.

Kindly acknowledge the receipt of the same.

This is for your kind information.

Thanking you.

Yours faithfully,

For NCL INDUSTRIES LIMITED

S. Chakradhar
President – Works

Encl: As above.

Copy to: The Environmental Engineer, TSPC Board, Regional Office,
H.No.8-15,1st Floor, Sri Laxmi Complex,Near RTA office,
Sri Vinayak Nagar, NALGONDA 508 201, TELANGANA.

Factory : Simhapuri, Mattapalli Village, Mattampalli Mandal, Suryapet Dist.,-508 204, T.S.
Tel : 08683-227630, Fax: 08683-227629 E-mail : nclworks@nclind.com
Regd. & Corporate Office: 7th Floor, NCL Pearl, Near Rail Nilayam, S.D. Road, Secunderabad-500 026. Telangana, India,
T : 91-40-30120000, 2980 7868/69, Fax: 91-40-2980 7871, E-mail: ncl@nclind.com | Website : www.nclind.com

ANNEXURE - XII
NCL INDUSTRIES LTD
CEMENT DIVISION
AMBIENT AIR QUALITY MONITORING DATA - MINES BUFFER ZONE
APRIL TO SEPTEMBER 2021

Date	1. Sultanpur Thanda						2.Mattapalli						3.Pedaveedu						4.Ramachandrapuram Thanda					
Time duration of sample 24hr	Flow Rate Avg m3/min	PM 10 µg/m 3	PM 2.5 µg/ m3	So2 µg/ m3	Nox µg/ m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/ m3	PM 2.5 µg/ m3	So2 µg/ m3	Nox µg/m 3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/ m3	PM 2.5 µg/ m3	So2 µg/ m3	Nox µg/ m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/ m3	PM 2.5 µg/ m3	So2 µg/ m3	Nox µg/ m3	Co PPM
11.04.2021	1.04	60	21	9	16	<1	1.07	72	25	13	23	<1	1.02	63	23	10	27	<1	1.11	54	19	6	18	<1
26.04.2021	1.16	54	20	7	19	<1	1.15	63	24	13	22	<1	1.09	66	26	11	24	<1	1.1	59	19	7	18	<1
06.05.2021	1.08	53	18	14	19	<1	1.13	75	27	8	25	<1	1.04	66	24	11	22	<1	1.07	58	20	10	17	<1
21.05.2021	1.12	56	21	9	16	<1	1.08	67	26	12	25	<1	1.06	64	23	8	20	<1	1.07	53	18	10	27	<1
05.06.2021	1.04	50	16	7	16	<1	1.09	67	25	13	26	<1	1.11	64	22	10	21	<1	1.15	55	18	9	18	<1
20.06.2021	1.04	52	17	8	18	<1	1.02	63	24	10	20	<1	1.08	60	21	12	22	<1	1.11	58	20	7	16	<1
06.07.2021	1.08	54	17	6	15	<1	1.11	69	26	12	25	<1	1.04	66	25	7	17	<1	1.13	53	16	10	21	<1
21.07.2021	1.12	55	19	6	16	<1	1.1	65	25	13	26	<1	1.03	57	20	10	20	<1	1.09	51	17	9	21	<1
04.08.2021	1.04	51	15	8	18	<1	1.13	65	23	13	20	<1	1.06	63	21	11	15	<1	1.02	56	19	7	24	<1
19.08.2021	1.09	54	16	10	18	<1	1.05	68	27	7	23	<1	1.01	60	22	14	25	<1	1.08	56	18	11	19	<1
02.09.2021	1.08	58	18	6	19	<1	1.12	67	24	12	22	<1	1.08	62	20	8	17	<1	1.14	54	16	10	21	<1
17.09.2021	1.06	58	19	12	22	<1	1.12	63	21	8	27	<1	1.05	65	25	13	23	<1	1.11	52	17	10	17	<1

ANNEXURE - XII
NCL INDUSTRIES LTD
CEMENT DIVISION
AMBIENT AIR QUALITY MONITORING DATA - MINES CORE ZONE
APRIL TO SEPTEMBER 2021

MATTAPALLI Limestone Mines - Core Zone

Date	1. Mines Lighting Tower						2. Rest Shelter Mines						3.Factory Gate						4.Magazine security Building					
Time duration of sample 24hr	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM
10.04.2021	1.1	60	21	11	22	<1	1.13	68	26	6	15	<1	1.05	74	28	12	25	<1	1.08	64	22	8	20	<1
25.04.2021	1.06	68	25	10	20	<1	1.08	72	28	12	22	<1	1.12	82	31	9	25	<1	1.14	63	24	8	23	<1
05.05.2021	1.06	63	22	9	24	<1	1.11	78	31	13	18	<1	1.09	76	29	7	23	<1	1.02	69	25	12	16	<1
20.05.2021	1.04	71	27	7	21	<1	1.1	80	32	11	19	<1	1.15	78	29	6	17	<1	1.09	66	25	13	24	<1
04.06.2021	1.02	60	21	10	19	<1	1.08	66	26	12	25	<1	1.13	73	27	11	22	<1	1.1	62	24	8	17	<1
19.06.2021	1.14	67	26	9	23	<1	1.05	72	28	7	16	<1	1.12	82	33	13	26	<1	1.1	69	27	10	22	<1
05.07.2021	1.09	57	19	8	18	<1	1.12	61	20	9	20	<1	1.06	70	29	13	24	<1	1.15	65	23	11	22	<1
20.07.2021	1.08	64	24	12	24	<1	1.14	60	22	9	19	<1	1.06	76	30	11	22	<1	1.02	67	26	8	18	<1
03.08.2021	1.03	62	22	6	16	<1	1.1	71	26	12	21	<1	1.05	79	31	9	27	<1	1.12	67	24	10	19	<1
18.08.2021	1.06	60	21	8	20	<1	1.11	74	29	13	17	<1	1.07	79	32	7	24	<1	1.04	65	23	6	15	<1
01.09.2021	1.06	65	24	9	20	<1	1.13	74	28	14	23	<1	1.07	70	25	7	18	<1	1.11	61	20	13	16	<1
16.09.2021	1.09	58	17	6	25	<1	1.03	71	24	11	21	<1	1.1	73	28	9	18	<1	1.08	62	20	7	16	<1

SULTANPUR THANDA Limestone Mines -Core Zone

Date	1. North Side of Mines						2. South Side of Mines						3.East side of Mines						4.West Side of mines					
Time duration of sample 24hr	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM
13.04.2021	1.13	55	19	10	20	<1	1.07	66	23	12	23	<1	1.09	71	26	13	26	<1	1.15	60	21	8	22	<1
28.04.2021	1.13	68	25	9	21	<1	1.08	71	26	14	25	<1	1.05	63	22	8	20	<1	1.11	60	19	12	23	<1
08.05.2021	1.06	67	23	6	24	<1	1.08	75	28	14	18	<1	1.04	70	25	7	21	<1	1.12	58	17	12	16	<1
23.05.2021	1.06	61	19	11	24	<1	1.12	75	28	13	19	<1	1.08	69	25	9	15	<1	1.04	63	20	7	17	<1
07.06.2021	1.08	62	21	12	22	<1	1.05	72	26	10	20	<1	1.07	66	23	8	17	<1	1.09	53	16	9	19	<1
22.06.2021	1.03	57	17	8	18	<1	1.1	71	26	10	22	<1	1.13	63	21	7	19	<1	1.07	66	24	12	25	<1
08.07.2021	1.15	58	16	10	21	<1	1.09	60	19	8	18	<1	1.04	63	21	13	25	<1	1.12	67	26	11	23	<1
23.07.2021	1.15	66	25	9	20	<1	1.06	60	22	13	24	<1	1.08	70	27	11	21	<1	1.11	64	23	8	17	<1
06.08.2021	1.14	63	18	7	24	<1	1.07	57	16	12	22	<1	1.06	65	24	8	19	<1	1.1	70	28	10	26	<1
21.08.2021	1.14	73	28	7	22	<1	1.09	56	19	10	19	<1	1.06	68	24	14	16	<1	1.12	62	21	9	23	<1
04.09.2021	1.11	69	22	9	25	<1	1.03	53	15	11	17	<1	1.05	74	26	6	22	<1	1.08	65	20	12	18	<1
19.09.2021	1.05	69	25	11	25	<1	1.11	61	22	13	17	<1	1.04	76	27	8	20	<1	1.13	58	19	7	16	<1

GUNDLAPALLI Limestone Mines - Core Zone

Date	1. North Side of Mines						2. South Side of Mines						3.East side of Mines						4.West Side of mines					
Time duration of sample 24hr	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM	Flow Rate Avg m3/min	PM 10 µg/m3	PM 2.5 µg/m3	So2 µg/m3	Nox µg/m3	Co PPM
12.04.2021	1.11	68	26	7	16	<1	1.05	63	23	12	23	<1	1.07	71	29	10	20	<1	1.13	65	25	8	22	<1
27.04.2021	1.14	69	25	12	24	<1	1.1	78	32	10	20	<1	1.12	73	27	13	16	<1	1.08	63	23	7	22	<1
07.05.2021	1.06	64	20	11	18	<1	1.11	73	26	9	25	<1	1.04	67	24	14	27	<1	1.09	76	28	7	19	<1
22.05.2021	1.07	62	21	9	26	<1	1.03	74	26	11	18	<1	1.15	79	30	14	23	<1	1.06	68	24	10	16	<1
06.06.2021	1.05	61	18	9	21	<1	1.08	70	24	12	24	<1	1.13	64	22	8	20	<1	1.07	73	26	10	22	<1
21.06.2021	1.13	65	23	12	25	<1	1.06	72	25	6	16	<1	1.09	74	28	11	22	<1	1.12	62	20	8	20	<1
07.07.2021	1.11	67	22	11	19	<1	1.05	62	21	13	26	<1	1.04	58	18	6	17	<1	1.13	70	24	12	21	<1
22.07.2021	1.08	69	25	10	22	<1	1.1	62	20	9	20	<1	1.06	71	27	7	18	<1	1.14	56	18	12	24	<1
05.08.2021	1.08	69	25	8	16	<1	1.03	64	23	14	22	<1	1.06	56	17	9	19	<1	1.12	73	25	8	25	<1
20.08.2021	1.05	58	18	6	24	<1	1.12	70	24	11	17	<1	1.04	76	29	13	21	<1	1.1	61	21	6	20	<1
03.09.2021	1.04	76	27	6	20	<1	1.09	71	24	11	25	<1	1.02	60	19	13	17	<1	1.05	69	23	10	23	<1
18.09.2021	1.07	63	20	7	16	<1	1.11	75	26	14	23	<1	1.13	72	23	9	20	<1	1.08	59	17	10	21	<1

NCL INDUSTRIES LTD

ANNEXURE - XII

NCL INDUSTRIES LTD

CEMENT DIVISION

GROUND WATER LEVELS MONITORING REPORT

APRIL TO SEPTEMBER 2021

Date of Survey	Mattapalli Village	Sultanpur Thanda	Pedaveedu Village	Ramachandrapuram Village
27.04.2021	There are no open wells. Krishna river water is being used	There are no open wells. Krishna river water is being used	Water level is 8.20 mtrs from the ground surface in the open well	Water level is 8.90 mtrs from the ground surface in the open well
22.05.2021	There are no open wells. Krishna river water is being used	There are no open wells. Krishna river water is being used	Water level is 7.10 mtrs from the ground surface in the open well	Water level is 8.20 mtrs from the ground surface in the open well
21.06.2021	There are no open wells. Krishna river water is being used	There are no open wells. Krishna river water is being used	Water level is 6.80 mtrs from the ground surface in the open well	Water level is 7.80 mtrs from the ground surface in the open well
22.07.2021	There are no open wells. Krishna river water is being used	There are no open wells. Krishna river water is being used	Water level is 5.60 mtrs from the ground surface in the open well	Water level is 6.50 mtrs from the ground surface in the open well
19.08.2021	There are no open wells. Krishna river water is being used	There are no open wells. Krishna river water is being used	Water level is 5.30 mtrs from the ground surface in the open well	Water level is 6.10 mtrs from the ground surface in the open well
16.09.2021	There are no open wells. Krishna river water is being used	There are no open wells. Krishna river water is being used	Water level is 4.90 mtrs from the ground surface in the open well	Water level is 5.80 mtrs from the ground surface in the open well

ANNEXURE - XII

NCL INDUSTRIES LTD

CEMENT DIVISION

NOISE LEVEL DATA

APRIL TO SEPTEMBER 2021

Location	GUNDLAPALLI MINE		SULTHANPUR MINES		MATTAPALLI MINE	
Date	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time	Levels in dB(A) Leq Day Time	Levels in dB(A) Leq Night Time
27.04.2021	66	61	68	63	64	59
23.05.2021	69	64	66	61	68	62
22.06.2021	67	62	60	55	63	58
23.07.2021	63	58	61	56	65	60
16.09.2021	60	54	64	59	67	62

LAWN ENVIRO ASSOCIATES

[Engineers & Consultants in Pollution Control]

Recognised by Ministry of Environment Forest & Climate Change (MoEF & CC), GOI, New Delhi & Laboratory Accredited by NABL

ISO 9001, 14001 & 45001 CERTIFIED COMPANY

TEST REPORT

REF.NO: LAWN/NCL-M/2021

Date: 14-6-2021

WATER QULAITY DATA

Name of the Industry & Address: **M/s. NCL INDUSTRIES LIMITED., SULTANPUR THANDA LIMESTONE MINE**
Simhapuri, Mattapalli (V), Mattampally (M), Suryapet (Dist) – 508 204.

Date of Collection: 27-5-2021
Date of Analysis : 28-5-2021

Sl.No	Tests	RESULTS			IS 10500 (Drinking Water Standard)	
		Gundlapalli (Village)	Krishna River UpStream River	Krishna River Down Stream	Desirable Limits	Permissible Limits
1	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Colour (Hazen units)	<5	<5	<5	5	15
4	pH	7.10	7.81	7.94	6.5 to 8.5	No Relaxation
5	Turbidity, NTU	<1	<1	<1	1	5
6	Total Hardness as $CaCO_3$, mg/l	322	67	72	200	600
7	Iron as Fe, mg/l	0.20	0.14	0.18	0.3	No Relaxation
8	Chlorides as Cl, mg/l	81	10.59	12.4	250	1000
9	Dissolved Solids, mg/l	587	79	73	500	2000
10	Calcium as Ca, mg/l	88	7.9	6.5	75	200
11	Magnesium as Mg, mg/l	24.78	11.48	13.54	30	100
12	Copper as Cu, mg/l	<0.01	<0.01	<0.01	0.05	1.5
13	Manganese as Mn, mg/l	<0.01	<0.01	<0.01	0.1	0.3
14	Sulphate as SO_4, mg/l	34	31	28	200	400
15	Nitrate as NO_3, mg/l	31	1.2	2.8	45	100
16	Fluoride as F, mg/l	0.37	0.17	0.22	1.0	1.5
17	Mercury as (Hg), mg/l	<0.001	<0.001	<0.001	0.001	No Relaxation
18	Cadmium as (Cd), mg/l	<0.003	<0.003	<0.003	0.003	No Relaxation
19	Selenium as Se, mg/l	<0.01	<0.01	<0.01	0.01	No Relaxation
20	Arsenic as As, mg/l	<0.01	<0.01	<0.01	0.01	0.05
21	Cyanide as CN, mg/l	<0.01	<0.01	<0.01	0.05	No Relaxation
22	Lead as Pb, mg/l	<0.01	<0.01	<0.01	0.01	No Relaxation
23	Zinc as Zn, mg/l	<0.01	<0.01	<0.01	5	15
24	Total Chromium as Cr^{+6}, mg/l	<0.01	<0.01	<0.01	0.05	No Relaxation
25	Alkalinity as $CaCo_3$, mg/l	273	47	50	200	600
26	Boron as B, mg/l	0.10	0.10	0.12	0.5	1

Checked by
(C.Anuradha)
General Manager

Authorized Signatory
(D.Nagarjuna Reddy)
Chief Executive

*End of the Report

LAWN ENVIRO ASSOCIATES

[Engineers & Consultants in Pollution Control]

Recognised by Ministry of Environment Forest & Climate Change (MoEF & CC), GOI, New Delhi & Laboratory Accredited by NABL

ISO 9001, 14001 & 45001 CERTIFIED COMPANY

REF.NO: LAWN/NCL-M/2021 **TEST REPORT** Date: 14-6-2021

WATER QULAITY DATA

Name of the Industry & Address: **M/s. NCL INDUSTRIES LIMITED.,**
SULTANPUR THANDA LIMESTONE MINE
Simhapuri, Mattapalli (V), Mattampally (M),
Suryapet (Dist) – 508 204.

Date of Collection: 27-5-2021
Date of Analysis : 28-5-2021

Sl.No	Tests	RESULTS			IS 10500 (Drinking Water Standard)	
		Mattapalli (Village)	Mattampalli (Village)	Tangeda (Village)	Desirable Limits	Permissible Limits
1	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Colour (Hazen units)	<5	<5	<5	5	15
4	pH	8.12	7.62		6.5 to 8.5	No Relaxation
5	Turbidity, NTU	<1	<1	<1	1	5
6	Total Hardness as $CaCO_3$, mg/l	162	315	579	200	600
7	Iron as Fe, mg/l	0.26	0.14	0.22	0.3	No Relaxation
8	Chlorides as Cl, mg/l	106	74	345	250	1000
9	Dissolved Solids, mg/l	530	636	1,716	500	2000
10	Calcium as Ca, mg/l	34	60	180	75	200
11	Magnesium as Mg, mg/l	18.70	40.09	31.34	30	100
12	Copper as Cu, mg/l	<0.01	<0.01	<0.01	0.05	1.5
13	Manganese as Mn, mg/l	<0.01	<0.01	<0.01	0.1	0.3
14	Sulphate as SO_4, mg/l	64	87	32	200	400
15	Nitrate as NO_3, mg/l	2.08	9.54	408	45	100
16	Fluoride as F, mg/l	1.05	1.19	0.82	1.0	1.5
17	Mercury as (Hg), mg/l	<0.001	<0.001	<0.001	0.001	No Relaxation
18	Cadmium as (Cd), mg/l	<0.003	<0.003	<0.003	0.003	No Relaxation
19	Selenium as Se, mg/l	<0.01	<0.01	<0.01	0.01	No Relaxation
20	Arsenic as As, mg/l	<0.01	<0.01	<0.01	0.01	0.05
21	Cyanide as CN, mg/l	<0.01	<0.01	<0.01	0.05	No Relaxation
22	Lead as Pb, mg/l	<0.01	<0.01	<0.01	0.01	No Relaxation
23	Zinc as Zn, mg/l	<0.01	<0.01	<0.01	5	15
24	Total Chromium as Cr^{+6}, mg/l	<0.01	<0.01	<0.01	0.05	No Relaxation
25	Alkalinity as $CaCo_3$, mg/l	182	296	378	200	600
26	Boron as B, mg/l	0.19	0.17	0.31	0.5	1

Checked by
(C.Anuradha)
General Manager

Authorized Signatory
(D.Nagarjuna Reddy)
Chief Executive

*End of the Report

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ISO 9001, 14001 & 45001 CERTIFIED COMPANY

REF.NO: LAWN/NCL-M/2021 **TEST REPORT** Date: 14-6-2021

WATER QULAITY DATA

Name of the Industry & Address: **M/s. NCL INDUSTRIES LIMITED., SULTANPUR THANDA LIMESTONE MINE** Simhapuri, Mattapalli (V), Mattampally (M), Suryapet (Dist) – 508 204.

Date of Collection: 27-5-2021
Date of Analysis : 28-5-2021

Sl.No	Tests	RESULTS			IS 10500 (Drinking Water Standard)	
		Raghunatha palem(Village)	Pedaveedu (Village)	Ramchanda puram (Village)	Desirable Limits	Permissible Limits
1	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Colour (Hazen units)	<5	<5	<5	5	15
4	pH	6.72	7.85	6.95	6.5 to 8.5	No Relaxation
5	Turbidity, NTU	<1	<1	<1	1	5
6	Total Hardness as $CaCO_3$, mg/l	293	386	583	200	600
7	Iron as Fe, mg/l	0.22	0.26	0.15	0.3	No Relaxation
8	Chlorides as Cl, mg/l	48	109	461	250	1000
9	Dissolved Solids, mg/l	478	696	1,724	500	2000
10	Calcium as Ca, mg/l	90	97	188	75	200
11	Magnesium as Mg, mg/l	16.52	34.88	28	30	100
12	Copper as Cu, mg/l	<0.01	<0.01	<0.01	0.05	1.5
13	Manganese as Mn, mg/l	<0.01	<0.01	<0.01	0.1	0.3
14	Sulphate as SO_4, mg/l	35	105	334	200	400
15	Nitrate as NO_3, mg/l	21	21	38	45	100
16	Fluoride as F, mg/l	0.25	0.46	0.29	1.0	1.5
17	Mercury as (Hg), mg/l	<0.001	<0.001	<0.001	0.001	No Relaxation
18	Cadmium as (Cd), mg/l	<0.003	<0.003	<0.003	0.003	No Relaxation
19	Selenium as Se, mg/l	<0.01	<0.01	<0.01	0.01	No Relaxation
20	Arsenic as As, mg/l	<0.01	<0.01	<0.01	0.01	0.05
21	Cyanide as CN, mg/l	<0.01	<0.01	<0.01	0.05	No Relaxation
22	Lead as Pb, mg/l	<0.01	<0.01	<0.01	0.01	No Relaxation
23	Zinc as Zn, mg/l	<0.01	<0.01	<0.01	5	15
24	Total Chromium as Cr^{+6}, mg/l	<0.01	<0.01	<0.01	0.05	No Relaxation
25	Alkalinity as $CaCo_3$, mg/l	252	266	337	200	600
26	Boron as B, mg/l	0.11	0.90	0.28	0.5	1

Checked by
(C.Anuradha)
General Manager

Authorized Signatory
(D.Nagarjuna Reddy)
Chief Executive

*End of the Report